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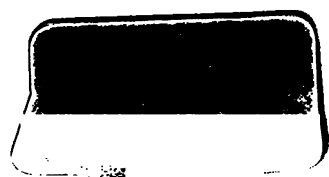
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A
MANUAL OF GEOGRAPHY,
&c.

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A MANUAL
OF
G E O G R A P H Y,

COMPILED

For the Use of

MILITARY STUDENTS.

BY

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PREFACE.

A FEW words will suffice to state the reasons why this work has been compiled, and the objects it is intended to answer.

Of the many excellent works on Geography already published, it was felt that no single volume contained the full and exact amount of information required for Military Students. In the present volume it has been attempted to bring together, in a concise form, such information as will supply that want.

The compiler lays no claim whatever to originality ; and it is hoped that the names of Ansted, Hughes, McCulloch, Keith - Johnston, Somerville, Zornlin, Bruce, and Butler, whom he has followed as authorities on Physical Geography and Modern

Geography in general, together with those of Cramer, Heeren, and Butler on Ancient Geography, will be a sufficient guarantee for the accuracy of the work. The Appendix on Military Topography has been borrowed, almost *in extenso*, from Lieut. Jervis's "Manual of Field Operations."

E. M. H.

R. M. College, June, 1853.

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A

MANUAL OF GEOGRAPHY,

&c.

PRELIMINARY OBSERVATIONS, DEFINITIONS, &c.

GEOGRAPHY is a description of the earth, and of the different parts of its surface.

It may be divided into four branches.

I. *Mathematical Geography*, which treats of the form, motions, and magnitude of the earth, and is connected with the sciences of mathematics and astronomy.

II. *Physical Geography*, which treats of the great natural divisions of the earth's surface ; its material and structure ; its various productions, animal and vegetable ; its atmosphere, climates, and other particulars respecting its physical or natural condition. This branch of geography is connected with natural history and natural philosophy.

III. *Political Geography*, which treats of the divisions of the earth into states and empires, with their extent, population, and resources ; forms of government, laws, religions, customs, manners, learning, and other matters which pertain to man, as a political or social being. This branch of geography is connected with history and political economy.

IV. *Military Geography*, sometimes called *Military*

B

Topography, which has for its object the consideration of the geographical features of the earth, with a view to military operations. In this is included topographical details of countries, artificial as well as natural.

The form of the earth is spherical, except at the poles, where it is a little flattened, but so slightly, that even the largest artificial globes are made perfectly round. Its diameter is about 8000 miles, its circumference about 25,000. The surface of the earth consists of *land* and *water*, the denominations of the different parts of which are as follow :—

LAND.

A *Continent* is a wide extent of land containing several countries, no where entirely separated by water ; as the eastern and western continents ; the former including Europe, Asia, and Africa, and the latter North and South America.

An *Island* is a smaller tract of land, entirely surrounded by water ; as Great Britain, Ireland, &c.

A *Peninsula* or *Chersonese* is a portion of land, which is almost an island, being surrounded on all sides by water, except where it is joined to the continent by a narrow neck of land, as the Morea or Peloponnesus in Greece, South America, &c.

The narrow neck of land which joins a peninsula to a continent, or one continent to another, is called an *Isthmus*, as the Isthmus of Suez, which joins Africa to Asia.

A *Cape* is a headland which runs out into the sea, as Cape Horn, &c. ; when elevated or mountainous it is called a *Promontory*.

A *Mountain* is a vast elevation of land ; as the Ural Mountains between Europe and Asia ; the Andes, in South America.

A *Chain* or *Ridge of Mountains* is a series of elevations

linked together continuously, so that their length greatly exceeds their breadth, as the chain of the Alps, &c.

The *Crest* is the highest part of the range.

The *Peak* is the conical or pointed summit of a mountain.

A *Table-land* or *Plateau* is a portion of the surface of the earth elevated above the level of the region in which it is situated: it may be entirely surrounded by mountains or cliffs, or only bounded on one side by higher land.

A *Watershed* is the ridge line, from the slopes of which waters flow in different directions.

A *River basin* is the space enclosed by a watershed.

A *Delta* is an alluvial tract between the bifurcating branches of a river. The best example of a delta is that at the mouth of the Nile.

WATER.

An *Ocean* is a vast extent of water, no where entirely separated by land, and *corresponding* to a continent.

A *Sea* is smaller than an ocean, and is generally bounded, or confined, by land.

An *Archipelago* is a sea interspersed with numerous islands; as the Archipelago between Turkey in Europe and Asia.

A *Gulf* is a part of the ocean, or of a sea, running up far into the land; it is almost surrounded by land, and corresponds to a peninsula.

A *Bay* is somewhat similar to a gulf; it has a wider opening, but is, generally speaking, not so large.

A *Strait* is a narrow passage of water joining a sea to an ocean, or one sea to another; as the Straits of Gibraltar. It corresponds to an isthmus.

A *Channel* is a wider passage of water, from one sea to another; as St. George's Channel.

A *Sound* is a strait so shallow that it may be sounded.

A *Creek* is a narrow branch of the sea running into the land.

A *Haven* or *Harbour* is a small portion of sea so nearly surrounded by land as to afford complete security for ships.

A *Lake* is a portion of water entirely surrounded by land ; as the Lake of Geneva.

A *River* is a body of water flowing from elevated ground into the sea.

Its *source* is the place where it bursts from the earth.

Its *mouth* is the place of its junction with the ocean.

The *right bank* is on the right, and the *left bank* on the left, of one going from its source to its mouth.

A *Frith* or *Estuary*, or *Fiord* (pronounced *Fiurth*), is the widening of a river into an arm of the sea ; as the Frith of Forth.

The land is generally divided into four great portions : they are, Europe, Asia, Africa, and America. The first three form the *ancient* continent, and the fourth the *new*. A fifth division of the globe, under the name of Australia, or Australasia, has been recently adopted by geographers, including the immense island of that name, with the islands of the Indian Archipelago.

ON MAPS.

A *Map* is a representation of the whole, or any part, of the earth's surface upon a plane.

It is customary to place the top or upper part of the map towards the north ; the bottom towards the south ; the right-hand side is towards the east ; and the left-hand side is towards the west.

The figures along the sides of the map express the *latitudes*, or distances of places north or south of the equator.

The figures along the top and bottom express the *longitudes*, or distances from the east and west of the first

meridian, which we reckon from *Greenwich*, the French from *Paris*, and some geographers from *Ferro*.

Land is distinguished from the sea or ocean by strong black lines, shaded towards the sea. Divisions of land are distinguished by dotted lines, and frequently by different colours. The situation of cities, towns, &c. is pointed out by a cipher, or the figure of a house. Rivers are delineated by black waving lines; lakes and mountains by appropriate shading; and sand-banks in the water by small dots. In maps intended chiefly to show the coasts, bays, harbours, &c. of countries, the depth of the water is indicated by figures, signifying fathoms.

PHYSICAL GEOGRAPHY.

Physical geography is the history of the earth in its whole material organization; as a planet, inasmuch as it affects, and is affected by, the other planets of our solar system, and all other bodies in space; as a mass of matter, whose external crust exists in various mechanical conditions acting on and affecting each other; as the seat of organic life, consisting of certain tribes of vegetables and animals adapted to its present state; as subject to certain mechanical and chemical changes which modify the conditions of organic existence; and, lastly, as containing and exhibiting in its solid portions a history of itself in former states, and when inhabited by different organic beings, thus affording memorials of events and changes that have occurred at and near its surface during the lapse of a vast period of time, if not from the very commencement of its existence as a planet.

General Division of the Globe into Land and Water.—

The term *land* includes every variety of mineral substance and rock formation usually existing in a solid form upon the earth, and not covered constantly by water. It is a well-known fact that the surface of the earth thus pre-

sented is very irregular in outline and elevation, being collected into some extensive continental masses, and a vast number of smaller areas, called islands. In describing the physical peculiarities of the land, we shall have to notice, *the form and position of the continents—their extent both in magnitude and direction—the position of the several portions of their surface with respect to the sea-level—the nature, extent, and direction of their elevations above, and depressions below, this general level—together with the position, the mode of grouping, and the irregularities of surface of the different islands.*

Water.—The principal part of the water on the globe occupies large depressions on the solid surface, known under the name of *oceans*. These are connected together by comparatively narrow passages, and are therefore really united, forming one wide and continuous expanse of sea.

The actual surface of the globe is reckoned at about 197,000,000 square miles, of which 145,000,000 square miles are covered by the waters of the ocean.

Distribution of Land.—The land is very unequally distributed in the two hemispheres separated by the earth's equator, the proportion of land to water on the north side being very much larger than on the south: so also the absolute quantity of dry land on the east side of the Atlantic is much larger than on the west; and if an observer were stationed vertically over England (which is nearly the centre of the northern hemisphere), and could thence see one-half the globe, he would have before him almost all the land; while on the other side would be scarcely any thing but a few islands and a portion of Australia and Patagonia visible above water.

The whole area of land on the earth has been estimated at about fifty-one and a half millions of square miles, of which more than three-fourths lie to the north of the equator. Only about one twenty-fourth of the whole area

of land consists of islands (Australia being excluded). If we compare the north with the south temperate zone, we find the proportion of land as thirteen to one.

Continental Land.—Of the whole area of land, that portion which, being connected together and continuous, is called *continent*, consists of two principal portions, one on the eastern side, containing Europe, Asia, and Africa, or the Old World; and the other the western, including the two Americas, or the New World.

The principal direction of the old continent is from E. to W., or, more precisely, from N.E. to S.W.; while the western continent extends from N.N.W. to S.S.E. Both continents are terminated towards the north at about the 70th parallel of latitude, and both run into pyramidal points towards the south. The area of the old continent, with its adjacent islands, is about 33,000,000 of square miles; that of America only fourteen millions and a half; and Australia, with the Polynesian Archipelago, barely 4,000,000. Asia forms one-half of the old continent, Africa three-eighths, and Europe only about one-eighth of the whole.

The form and indentation of the coast lines are phenomena of considerable interest, especially as they bear on commercial enterprise. All the shores of Europe are deeply indented by bays, and there are also a number of large inland seas, so that it has a larger extent of coast line than any other district of the same magnitude. The coast line of Europe measures nearly 20,000 miles; that of Asia 33,000 miles; of Africa 15,000 miles; of America upwards of 40,000 miles. The western coast of the Old World, in Europe, is the most deeply and frequently indented, and the best adapted of any on the globe to the wandering habits of mankind.

Islands.—The islands, or portions of land separated by water from the great continental areas, vary in character

very greatly, some being arranged in distinct groups and series, others being related to the adjacent main land. These may be considered to form two principal sets, viz. the elongated or continental islands, generally belonging to the nearest considerable mass of land, as the Japan islands; and the round or pelagic islands, forming systems, generally occurring in the open ocean, and apart from continental lands, as the Friendly and the Society Islands.

Inequalities of the Surface of Land.—Not only is it the case that the land, whether continental or insular, offers the various peculiarities already described, but each mass of land presents some distinct features of inequality of level. Occasionally, but very rarely, large tracts may be observed extending in every direction, at nearly the same level, and removed but little above the surrounding water. Much more frequently there occur undulations in every extensive area, and also different degrees of absolute elevation above a mean level. Such varieties produce the phenomena which are described under the names of *plains* or *table-lands*, and these are rent asunder by valleys and gorges, or pierced through by mountain chains, and broken into picturesque forms of hill and dale.

Low Plains and Steppes in Europe and Western Asia.—A very large quantity of the land is distributed as low plains near the sea level, and often not far from a coast line. These occasionally present hills of moderate altitude, in most cases not reducible to any general system. Sometimes these hills are long waves or undulations, and often perfectly uniform in structure for many miles. Under the name of *plains* are designated the low flat lands of Northern Germany and Russia and of Lombardy; the flats of Tartary are called *steppes*; those occupying the central part of Northern Africa are *deserts*; those in the northern part of South America *silvas*, or forest deserts; those of other parts of South America *llanos* and *pampas*; and those of

North America, *prairies*, or *savannahs*. Many are the peculiarities of these districts, but they have in common the important physical feature of wide extent, uniform general level, and small elevation above the sea.

High Plains, Table-lands, or Plateaux of the Old World.

—A very considerable portion of the dry land upon the globe consists of land extending for a great distance at a considerable elevation above the sea. Such land often presents a greatly varied surface, and is generally connected with important mountain chains. An example of such table-land in Europe may be seen in the central plateau of Spain, consisting of a tract of nearly 100,000 square miles, elevated from 2000 to 3000 feet above the sea, and nearly surrounded by mountains. It must not be understood that these high lands present generally an absolute level, or resemble in this respect the steppes, deserts, or savannahs, already described. They are often bounded by mountain ranges, and the highest mountains of the world rise out of them. They occasionally also exhibit in their wide extent many mountain features.

Table-lands of America.—The table-lands, or plateaux, in the New World, are not so extensive as in the Old, but a wide and lofty tract occupies the greater part of Mexico, extending also to California, varying from 4000 to 9000 feet above the sea. In South America the table-lands are more remarkable for great altitude than extent. One of the most extraordinary, that of Desaguadero, in La Plata, has an altitude of 13,000 feet. The table-land of Quito is 200 miles long and thirty miles wide, at an elevation of 10,000 feet, and is bounded by a range of the grandest volcanoes in the world.

Mountain Systems of the Earth.—The most elevated portion of the earth's crust consists either of lofty ranges, exhibiting a serrated or saw-like summit of jagged edges, rising directly from plains; of elevated ridges flanking

table-lands ; of ridges subordinate in height, having, notwithstanding, important physical characters ; or of isolated peaks, or cones, not connected by intervening high ground. Strictly speaking, there are but two great systems of mountains on the globe, one in each great continent, although there may also be traced a multitude of others, some parallel to, and some making angles with the principal directions. The mountain chain of the old world or eastern continent has its main axis running E.N.E. and W.N.W., while that of the new or western continent is N.N.W. and S.S.E. The length of the former is about 9000 miles, and that of the latter 10,000 miles. The former rises in its highest part to 28,000 feet, while the latter nowhere attains a greater elevation than about 25,250 feet.

The position of the mean height of all the solid parts of the earth's crust above the sea has been estimated by Humboldt at about 1000 feet ; that of all Europe, 671 feet ; of Asia, 1132 feet ; of South America, 1151 feet ; and of North America only 748 feet.

The General Connexion of the Mountains of the Old World.
—Commencing with the western boundary of land at the Atlantic, we find the Atlas chain in Africa, the central Spanish mountains and the Pyrenees in Europe, nearly parallel to each other, and each connected with very lofty ranges further east, but all at length uniting and forming the commencement of the great Asiatic range, of which the Himalayan chain is the central and loftiest portion. The Atlas range is lofty, complicated, and important, and forms a broad belt, having three principal divisions, which occupy the whole interval between the Sahara and the Mediterranean. The loftiest portion is the most inland, and forms, in Morocco, a mountain knot 15,000 feet high. The Spanish peninsula is almost entirely occupied by the table-land already described, and parallel ridges of serrated mountain peaks, terminated northwards by the

Pyrenees, which are continued eastwards, at first, by slight elevations and low table-lands; but these soon connect themselves with the western extremity of the Alps, whence the ground ascends rapidly by successive chains of mountains, commencing with the lofty range of which Mont Blanc and Monte Rosa are the highest points, extending through the various ranges of the Oberland, the Tyrolese, the Julian, the Noric, and other Alps, into the Balkan, and stretching southwards, by very important spurs, of which the Apennines and the mountains of Dalmatia are the most considerable. The subsidiary ranges consist not only of those already mentioned, but also of the Jura (subsidiary to the Alps) and the Carpathians, which, turning southwards, partly complete the range towards the east, and partly connect the European mountain system with that of Asia. This communication is effected by the elevated land of the Crimea, conducting the Carpathians to the Caucasus; by the Balkan, passing into Asia Minor; by the mountains called Anti-Taurus; and also by the Taurus chain, which, by distant links in Sicily, Crete, and Greece, connects the south Spanish mountains with those of Asia Minor. In this way there appear to be in Europe three principal and nearly parallel ranges, the northern one being the loftiest. The principal transverse range, that of the Scandinavian chain, runs N. E. and S. W. There are four principal and parallel chains that intersect the interior of Asia, following an east and west direction; these are the Altai, the Thian-schan, the Kuen-lin, and the Himalaya.

There are also four running north and south, the Ural, the Bolar, the Kingan, and the fourth is Chinese.

General Outline of the Mountain Chains of the New World.—The mountain systems of the western continent are fewer, more simple, and more readily traced than those

of Europe, Asia, and Africa, the mass of land being much longer in proportion to its area, and its outline being less broken.

The Rocky Mountains, which begin on the shores of the Arctic Ocean, nearly under the 70th parallel, commence the American system, and connect it by islands with that of Asia. They continue south-eastwards in an unbroken line, separated only by the plains near the north end of the Gulf of California, from the high plateau of Mexico. The chain of the *Andes* may be considered as commencing in the plains of Mexico, at the point where the Rocky Mountain system ceases to be traceable, and passing through the narrow strip of land which separates the two Americas by means of the volcanic range of Guatemala, the chain enters South America at the Isthmus of Panama, and continues in a steady and almost unbroken line of high elevation, forming successively the Andes of Colombia and Quito, of Peru and Bolivia, of Chili, and of Patagonia, sinking down into the ocean beyond the southern extremity of Terra del Fuego, after having traversed the whole continent from north to south, a distance of 4500 miles.

Besides these, there are also in N. America the Alleghanies, or Appalachian chain; and in S. America, those of Guiana and Brazil, and that of Venezuela, which is an eastern branch or spur of the Andes.

Between the two Americas, and in the line of the principal islands known as the Great Antilles (Cuba, St. Domingo, and Porto Rico), there is an important mountain system, running W.N.W. and E.N.E., parallel to a similar range, of less elevation, rising above the sea only in Jamaica.

Mountain systems of Australasia.—Australia itself, the chief mass of land in this district, exhibits the same characters of table-land that are presented in Africa, viz.

sudden and precipitous mountain ranges towards the coast, which are not repeated inland, but slope gradually towards the interior. Ranges of this sort appear in New South Wales generally.

In addition to the great mountain systems traceable for considerable distances on the earth's surface, there are in many places detached mountains, or groups of mountains, chiefly volcanic, either rising directly from the sea, or from the extensive flat and often elevated plains.

WATER.

General Phenomena of the Ocean.—The form assumed by this immense mass of water is that of a spheroid flattened at the poles ; and as its mean level is always nearly the same, for any thing we know to the contrary, it serves as a base for measuring the height of the land.

The depth of the ocean varies exceedingly, and its bed is broken, like the surface of the land, into plateaux, forming shoals and ranges of mountains, as well as isolated mountains appearing above the surface in the form of islands, and groups of islands. Many parts of the ocean have been fathomed, but, in some places, a line of 27,600 feet (which nearly equals the height of some of the loftiest peaks of the Himalayan chain), failed to reach the bottom. In the Pacific, a line five miles long has failed to reach the bottom in many places, and between the tropics it is generally unfathomable¹. Around our own coast, the depth is very variable, not amounting to 100 feet over great part of the German Ocean ; while towards Norway, where the shore is bold, the depth is more than 5000 feet at a very short distance from the coast. The deep water commences also at a short distance from the shores of Ireland.

¹ Mrs. Somerville, p. 235.

The ocean, over all parts of the earth, contains a certain proportion of salt, which is not the same, however, for different seas, and even varies at different seasons, and at various depths. The proportion is generally about three or four per cent., but is larger in the southern than in the northern hemisphere, and in the Atlantic than the Pacific. The greatest proportion of salt in the Pacific is in the parallels of 22° north lat. and 17° south lat. Near the equator it is less; and in the polar seas it is least, from the melting of the ice; and the fresh water, being lighter, floats on the surface for a considerable distance before it becomes thoroughly mixed. Rain makes the surface of the sea fresher than the interior parts, and the influx of rivers renders the ocean less salt at their estuaries. The Atlantic is brackish 300 miles from the mouth of the Amazon. Deep seas are more saline than those that are shallow, and inland seas less so, from the rivers that flow into them. To this, however, the Mediterranean is an exception, occasioned by the great evaporation, and the influx of salt currents from the Black Sea and the Atlantic. Fresh water freezes at the temperature of 32° (Fahrenheit), salt water, in the *Greenland sea*, at $28\frac{1}{2}^{\circ}$; so that the saline principle preserves the sea in a liquid state to a much higher latitude than if it had been fresh. The healthfulness of the sea is attributed to the mixing of the water by tides and currents, which prevents the accumulation of putrescent matter.

Tides and Currents.—The waters of the ocean are in perpetual movement from the effects of *tides, currents, and winds*. The waters of the ocean are retained in their bed on the surface of the globe by the *attraction of gravitation*, that is, by the power which all particles of matter possess to draw towards them or attract other particles of matter. This power of attraction is greater in proportion to the size of any body, a large mass of matter having a much greater

power of attraction than a small one ; and as the earth is of much greater size than the particles of water on its surface, it attracts them and keeps them in their assigned place. But the sun and moon **also** possess this power of attraction, and, notwithstanding their distance from the waters on the earth's surface, attract and draw them up to a certain elevation in the wide open ocean. The vast mass of the waters being drawn up by the influence of the moon into a great mountain or curve of water in the wide open sea, forms what is termed the *great primary wave*, or *tidal wave*. When the waters of the ocean are thus drawn up to form this great wave, they necessarily recede from our shores, thus giving rise to *ebb-tide* or *low-water*. But when the temporary attraction ceases, the waters having been raised above their ordinary level, naturally flow down and spread in all directions, returning to our shores, and forming *flood-tide*, or *high-water*.

This *culmination*, or raising of the waters into this great wave, takes place twice in twenty-four hours and fifty minutes. The combined influence of the sun and moon at new and full moon augments the size of this wave, and causes the *spring tides* at those periods. The great Atlantic tidal wave arrives first at the western shores of the British islands ; it then divides into two branches, the principal of which passes round the coast of Scotland, and travels southward until it reaches the mouth of the Thames, where it encounters the lesser branch, which has swept along the southern shores. High water at the various points along the coast is dependent on the arrival of this great wave, though some variations are caused by local peculiarities, such as the form of the coast, &c.

The depth of water, or height of the tides, varies at different places, being also much influenced by the form of the land.

Currents in the ocean arise from various causes ; they

may be produced by long-continued gales of wind, by the melting of the polar ice, or by any cause that may give rise to onward movements of limited portions of the great mass of waters. Some currents of the ocean are permanent : the most remarkable of these are the *polar currents*, and the *equatorial currents*.

The *Polar Currents* are produced by the perpetual movement of the waters from the polar regions to the equator. In accordance with the laws of mechanics, an accumulation of the waters of the ocean takes place in that part of the globe which has the greatest velocity of motion ; and as the earth, while turning on its axis, moves with far greater velocity at the equator than it does in high latitudes, the waters consequently flow continually towards that line, thus forming currents in the ocean, moving from the north and south poles to the equator. This *culmination*, or accumulation of the waters of the ocean at the equator, tends to produce the *Equatorial Currents*, which consist of the continuous progression of the tropical seas in a westerly direction. When the mass of water brought by the polar currents arrives at the equator, coming as it does from regions where it naturally has less velocity, it does not at once acquire the velocity of the earth at the equator ; and since the rotation of the earth is from west to east, this portion of the water lagging behind, forms a stream or current which has an apparent motion from east to west, that is to say apparent as regards the earth, but real in relation to the adjacent land and water. The trade winds, which in this zone blow perpetually in the same direction, lend their aid in maintaining the equatorial current.

Action of Wind on the Ocean.—The sea is constantly undergoing a certain amount of movement, produced by various causes, some of which, and those the most remarkable, are external to our planet, although producing results upon it of the greatest possible importance. Others are

connected with the mere surface action of the atmosphere when disturbed, and moving rapidly over the water, striking it at an angle. These results produce what are called wind and storm waves. The friction of the wind combines with the tides in agitating the surface of the ocean, and, according to the theory of undulations, each produces its effect independently of the other ; wind, however, not only raises waves, but causes a transfer of superficial water also. Attraction between the particles of air and water, as well as the pressure of the atmosphere, brings its lower stratum into adhesive contact with the surface of the sea. If the motion of the wind be parallel to the surface, there will still be friction, but the water will be smooth as a mirror ; but if it be inclined, in however small a degree, a ripple will appear. This friction raises a minute wave, whose elevation protects the water beyond it from the wind, which consequently strikes against the surface at a small angle ; thus, each impulse combining with the other, produces an undulation which continually advances. The resistance of the water increases with the strength and inclination of the wind. The agitation at first extends little below the surface, but in long-continued gales even the deep water is troubled. The highest waves known are those which occur during a N.W. gale off the Cape of Good Hope, which are supposed to rise about forty feet from the trough to the summit. They are said to rise twenty feet off Australia, and sixteen feet in the Mediterranean. The waves are short and abrupt in small shallow seas, and on that account are more dangerous than the long rolling billows of the wide ocean. The undulation called a ground-swell, occasioned by the continuance of a heavy gale, is totally different from the tossing of the billows, which are confined to the area vexed by the wind, whereas the ground-swell is rapidly transmitted through the ocean to regions far beyond the direct influence of the

gale that raised it, and it continues to heave the smooth and glassy surface of the deep long after the wind and billows are at rest. A swell frequently comes from a quarter in direct opposition to the wind, and sometimes from various points of the compass at the same time, producing a vast commotion even in a dead calm, without ruffling the surface. When a gale is added to a groundswell, the force of the surge is tremendous, tossing huge masses of rock, and shaking the cliffs to their foundation. The violence of the tempest is so intense as to quell the billows, and blow the water out of the sea, driving it in a heavy shower, called *spoon-drift* by sailors. On such occasions, saline particles have impregnated the air to the distance of fifty miles inland. The effect of a gale descends to a comparatively small distance below the surface; the sea is probably tranquil at the depth of 200 or 300 feet; were it not so, the water would be turbid, and shell-fish would be destroyed. When the air is moist, its attraction for water is diminished, and, consequently, so is the friction; hence the sea is not so rough in rainy as in dry weather.

The Atmosphere.—The earth is surrounded by its *atmosphere*, which, like a transparent covering, envelopes and revolves with it. This atmosphere is considered to extend to the height of about forty or fifty miles, its height being greater at the equator than at the poles. The *air*, which expands into and forms this atmosphere, is an elastic fluid, consisting of a mixture of *oxygen gas* and *nitrogen* or *azotic gas*, in the regular proportions of twenty-one parts of oxygen to seventy-nine parts of nitrogen. The atmosphere also contains a small quantity of *carbonic acid gas*, and a yet smaller quantity of *ammonia*. *Water*, in the form of *vapour*, in which state it is invisible, is also always present in the atmosphere, though the quantity is subject to great variations. All these substances move

freely among each other, and are continually changing places; the oxygen being ever ready to perform the office assigned to it of sustaining life and combustion; the carbonic acid to promote the growth of vegetation; the nitrogen to perfect the fruits of the earth; and the vapour to descend to the thirsty ground in the form of showers and dew.

The air being *elastic* is therefore capable of *expansion*, or of spreading in all directions; and also of being compressed into a smaller space; and, when compressed, becomes more *dense*, or thicker, and consequently is heavier. And thus, if a closed vessel of any size be filled with compressed air, and another of similar size be filled with air which has not been compressed, the former is found to have more *weight* than the latter, in proportion to the degree of compression. The consequence of this elasticity of the air is, that it is much lighter and thinner in the upper regions of the atmosphere than nearer the earth's surface; for, at the level of the sea, the air has the weight of the *whole* atmosphere above it to compress it, and give it greater density; but at an elevation of 10,000 feet, the pressure from above being diminished, the air is less dense and lighter, because its elasticity causes it readily to become compressed near the level of the sea, and to expand in the upper regions of the atmosphere. And hence air is thinner or more *rarefied* on elevated mountains than at the level of the sea, the decrease in density being in regular proportion according to the height above the sea-level.

The weight of the atmosphere at the level of the sea is equal to about *fourteen pounds and a half on every square inch*. This is called the *weight of an atmosphere*, and is balanced by a column of mercury, thirty inches in height; but at the elevation of 18,000 feet it would be balanced by a column only fifteen inches in height, at that of 36,000,

by one only seven inches and a half in height, and so on. It is on this principle that the mercurial barometer has been constructed ; and since the mercury in the column is found (with slight local variations) to stand at the same point at all places at the level of the sea, and to fall in a regular ratio as we ascend above that level, this instrument forms a most useful standard for measuring the altitude of any place. Air is subject to variations in its density, even at the same level, being affected by the presence of vapour in the atmosphere, by currents of wind, by electric action, &c. ; and hence the mercury usually falls at the approach of rain, of wind, or of a thunder-storm ; and hence the daily and even hourly fluctuations which take place in the barometer.

The *temperature* of the air likewise diminishes as we ascend above the level of the sea, and accordingly the thermometer generally stands lower in elevated districts than in those nearer the sea-level in the same latitude ; and hence it is, that even in the hottest regions of the earth very lofty mountains are covered with perpetual ice and snow.

EUROPE.

PHYSICAL GEOGRAPHY OF EUROPE.

Extent and Boundaries.—*Europe* is the north-western part of the eastern continent, and the smallest of the three portions into which it is divided. It lies between the 36th and 71st parallels of N. latitude, and between the 10th meridian of W. and the 60th of E. longitude. It is bounded on the *N.* by the *Arctic Ocean*, on the *W.* by the *Atlantic Ocean*, on the *S.* by the *Mediterranean Sea*, the

Sea of Marmora, the *Black Sea*, and the chain of *Mount Caucasus*; and on the *E.* by the *Caspian Sea*, the river *Ural*, and the range of the *Ural Mountains*.

The greatest length of Europe, in a N.E. and S.W. direction, is from Cape St. Vincent (in Portugal) to a point in the chain of the Ural Mountains, near the 57th parallel of latitude, a line drawn along which measures 3370 English miles; the greatest breadth, from Nordkün in the N. to Cape Matapan in the S., is 2400 miles. Including the islands which belong to it, the entire superficial extent of Europe is estimated at about 3,700,000 English square miles. It has a coast line of nearly 20,000 miles.

General Aspect.—Europe is distinguished from all other continents of the globe by the great irregularities of its shape and surface, and by the great number of its inland seas, gulfs, harbours, peninsulas, promontories, and headlands. This circumstance tends not only to influence very materially the climate and natural products of this continent, but also to promote commerce and navigation.

Seas.—Beginning on the N., we find the *White Sea*, which is an offset of the Arctic Ocean: the *Baltic Sea*, belonging to the basin of the Atlantic, and approached by the channels called the Skager-Rack and the Kattegat, is entered by three narrow straits, formed by the islands of the Danish Archipelago, called respectively the Sound, the Great Belt, and the Little Belt. That part of the Atlantic between Great Britain and the shores of Holland, Denmark, and Norway, is called the *North Sea*, and the part of it immediately adjacent to the shores of England and Holland is called the *German Ocean*. The *Zuyder Zee* is an offset of the German Ocean. The strait of Dover connects the German Ocean with the *English Channel*, which extends between the opposite coasts of England and France.

On the S. of Europe, the *Mediterranean*, which is the

largest of inland seas, extends in length above 2400 miles. A strong current flows into the Mediterranean through the strait of Gibraltar. The tides in the Mediterranean are slight, not rising to more than a few inches. The strait of Gibraltar is thirteen miles wide in its narrowest part. The narrow channel of the Dardanelles (Hellespont) connects the Mediterranean with the *Sea of Marmora*, which is about 170 miles long and 48 broad.

The *Black Sea* is an oval-shaped basin, covering an area of 180,000 square miles. It has no tides, but a strong current sets from it into the Mediterranean, through the Bosphorus and Dardanelles.

The *Caspian Sea* is in reality a lake, and the largest in the world, covering a surface of 130,000 square miles. This sea is remarkable as lying in a basin depressed below the general level of the waters of the globe, its surface being eighty-three feet lower than the level of the Black Sea.

Bays and Gulfs.—The chief of these are the gulf or sea of Kara, in N. Russia; the bays of Archangel and Onega, belonging to the White Sea; the gulfs of Bothnia, Finland, and Riga, belonging to the Baltic, the Bay of Biscay, forming a part of the Atlantic; the gulf of Lyons, in the S. of France; those of Genoa, Naples, Taranto, Venice (head of the Adriatic), and Trieste, in Italy; of Arta, Lepanto (or Corinth), Egina, Volo, and Saloniki in Greece.

Peninsulas, Capes, &c.—Having so irregular an outline, Europe necessarily presents numerous peninsulas and headlands. In the S. the principal peninsulas are Spain with Portugal; Italy, with its sub-peninsulas of Calabria and Otranto; Turkey with Greece, which includes the sub-peninsulas of Morea and Salonica; and the Crimea, in the N. of the Black Sea. In the N. of Europe the great Scandinavian peninsula, and those of Lapland and Jutland,

are the principal ; and in the W. are the much less considerable ones of Brittany and Cotentin in France, and that including the counties of Devon and Cornwall in England.

The principal capes or headlands proceeding from N. to S. are :—Cape Gelania, in Nova Zembla ; the North Cape and the Naze, in Norway ; Cape Skagen, in Denmark ; Cape Wrath, in Scotland ; the Land's End, in England ; Cape Clear, in Ireland ; Cape La Hogue, in France ; Capes Finisterre, Roca, St. Vincent, and the rock of Gibraltar, in Spain and Portugal ; Spartivento and Leuca, in Italy ; Passaro, in Sicily ; and Matapan and Colonna, in Greece.

Islands.—The principal, forming part of Europe (Iceland being excluded), are :—Great Britain and Ireland, with their dependent groups in the Atlantic and North Sea ; Sicily, Sardinia, Corsica, Candia, the Cyclades and Sporades, the Ionian Islands, Dalmatian Archipelago, Malta, Elba, Majorca, Minorca, Ivica, the Lipari Islands, &c. in the Mediterranean and its cognate seas ; Zealand, Funen, Laland, Bornholm, Oland, Gottland, Oesel, Dago, and the Aland Archipelago in the Baltic ; the Loffoden and other islands on the coast of Norway ; Spitzbergen and Nova Zembla in the Arctic Ocean ; Guernsey, Jersey, Alderney, &c. in the British Channel ; Ushant, Belleisle, and a few others on the west coast of France.

Mountains.—The mountains of Continental Europe may be arranged into nine systems, viz. the Balkan, the Alps, the Carpathian Mountains, the Hercynian Mountains, the Mountains of France, the Mountains of the Spanish Peninsula, the Scandinavian Mountains, the Ural Mountains, and Mount Caucasus. Of these the main features and directions have already been described, but a more minute description of them will be given under the political divisions of the various countries of Europe.

Plains and Valleys.—The whole of Lower Europe,—by which may be understood the entire extent of country from the Ural Mountains and Astrakhan west, to the longitudes of Paris and London, including the greater part of Russia in Europe and Poland, Prussia Proper, the North of Germany, Holland, Belgium, and the North of France, and the east part of England,—consists of an immense plain, interspersed only here and there with a few detached hill ranges of no great magnitude. This plain is very little elevated above the sea level. Next to this great plain rank those watered by the Lower Danube (Wallachia and Bulgaria), the Middle Danube (the Greater and Less Hungarian plains), the Upper Danube (the plain of Bavaria), the plain watered by the Lower Rhine, that of Lombardy, and the Bohemian Basin. The valleys of Europe generally are but insignificant, compared with those of Asia; those of Norway and Scotland are commonly long and narrow, and their bottoms are often occupied by lakes having the appearance of rivers. Europe has no *desert* at all similar to those of the other great divisions of the globe. There are however some very extensive heaths or wastes. The principal are the *steppes* of Ryn, between the Wolga and Ural, and of the Wolga, between that river and the Don; the *pustzas* of Hungary, the wilds of Sweden, Norway, and Lapland, the sterile districts of Stade, Hanover, Luneburg, and Zell, in the kingdom of Hanover; and of Pomerania, Brandenburg, &c. in Prussia. The greater part of the departments of Landes and Gironde, in France, are covered with unproductive heaths, as is also a considerable portion of the Terra di Bari, in Italy.

Rivers.—The great watershed of Europe, or the ridge line dividing the waters which flow into the Mediterranean or Black Seas from those which flow into the Baltic and North Sea, runs through the continent in the general direction of N.E. and S.W. The courses of the

principal rivers are, therefore, for the most part, S. E. and N. W. ; of the six largest, the Wolga, Danube, Dnieper, Don, Rhine, and Dwina, the first four flow in the former, and the last two in the latter direction. The chief rivers of Europe may be classed according to the seas into which they discharge themselves. The Wolga (with the Kama) and the Ural fall into the Caspian ; the Don, Dnieper, Dniester, and Danube, into the Black Sea and Sea of Azof ; the Petchora and Dwina into the Arctic Ocean and White Sea ; the Neva, Duna, Niemen, Vistula, and Oder (in Russia, Poland, and Prussia) into the Baltic and its gulfs ; the Elbe, Weser, Rhine, Meuse, Scheldt (N. Germany), into the North Sea ; the Loire, Garonne, Douro, Tagus, and Guadalquivir, into the Atlantic ; and the Ebro, Rhone, and Po, into the Mediterranean and its gulfs. Nearly all the great rivers are in the E. and N.E. parts of the continent. Western Europe has but few rivers that have a course of more than 500 or 600 miles. Still, however, this part of the continent is extremely well watered ; and some of the shortest rivers, as the Thames and Shannon, afford the greatest facilities for internal navigation and commerce. If the length of the Danube be represented by 100 parts, the length of the other principal rivers will be, Wolga, 130 ; Dnieper, 72 ; Don, 69 ; Rhine, 49 ; Elbe, 42 ; Vistula, 41 ; Loire, 37 ; Tagus, 32 ; Rhone, 38 ; Po, 21 ; Tiber, 10 ; and Thames, 9, of these parts.

Lakes.—The principal European lakes occur in two distinct regions, one of which consists of the countries which lie around the Baltic, and the other of the plains and valleys among the Alpine system of mountains. The former are distinguished by their greater magnitude, the latter by their great elevation above the sea, and by the grandeur of the scenery among which they lie. Among the principal are the following :—

(Lakes situated round the Baltic.)

In Russia : Ladoga, Onega, Saima, and Enara.

In Sweden : Wener, Wetter, Mælar.

(Lakes belonging to the Alpine system.)

In Switzerland : Geneva, Constance, Neufchatel, Lucerne, Zurich.

In Hungary : Balaton (or Platten See), Neusiedler See.

In Italy : Lago Maggiore, Garda, Como.

Climate.—The whole of Europe, with the exception of parts of Lapland, Sweden, Norway, and N. Russia, being situated within the temperate zone, suffers but little from the extremes either of cold or heat. Its average temperature is higher than that of those parts of Asia and America situated within the same latitudes. This circumstance is probably owing to various causes, as the fact of its general elevation being less than that of central Asia; its being surrounded by seas, the waters of which are warmer than those of the oceans which surround the other continents; the agency of the gulf-stream in the Atlantic, which not only brings towards Europe a continual warm current from the torrid zone, but prevents the ice of the Arctic Ocean reaching its shores; and the powerful influence of civilization and culture exhibited in the drainage of marshes, &c. But within the limits of Europe there are vast differences of climate, and independently of the changes consequent upon difference of latitude, the temperature diminishes so much as we proceed eastward, that the inhabitants of Turkey, in lat. 42°, often experience a degree of cold unknown in the north of England in lat. 54°. The hottest part of Europe is its S.W. extremity: in Portugal the heat is often very oppressive. The S. of Europe, shut off from the cold N. and E. winds by the great Alpine ranges, has generally a warm climate, and occasionally suffers from the hot winds which blow

from the S. and S.E., and bring with them the intensely heated atmosphere of the deserts of N. Africa. In Italy and Sicily this wind is called the *Sirocco*: the hot wind which occurs in the S. of Spain is called the *Solano*. Humidity is the chief characteristic of the atmosphere in the west of Europe, as frigidity is in that of the east. With respect to the duration of the different seasons of the year, Europe may be divided into three zones. Southward of lat. 45° , the winter is mostly confined to rainy weather from October or November to January or February; snow rarely falls, and vegetation is scarcely impeded; the spring lasts from the latter months till April or May; and the summer, during which the temperature often rises to 107° , and autumn, the remainder of the year. Between lat. 45° and 55° the winter is the longest season, lasting generally from November to March or April; the spring continues from the latter month till June; the summer, the heat of which frequently rises to 92° , lasts till September; the autumn is the shortest season of all. North of lat. 55° the seasons are for the most part confined to two, winter and summer. In the more northern parts of this zone, the snow lies on the ground, and the rivers are frozen, for more than six months of the year. Beyond the Arctic circle the desolation of winter is broken only by two or three months of intense heat, during which the sun is perpetually above the horizon. The absence of this luminary for the rest of the year, is compensated for by the *aurora borealis*, which shines in these regions with the utmost brilliancy.

Geology.—According to *Lyell* (Principles of Geology), the following parts of Europe consist chiefly of primitive or transition formations: the Ural mountains; Lapland; nearly all Sweden, Finland, and Norway; most part of Scotland; the W. part of Wales; about half of Ireland; the N.W. counties, and those of Devon and Cornwall,

in England; Brittany, the W. of Normandy, and a great portion of the centre and N.E. part of France; the high ranges of the Alps; Corsica; most of Sardinia; the shore of Tuscany, Calabria Ultra, and the N.E. parts of Sicily; Bohemia; Carinthia; Styria; parts of Hungary and Transylvania; the east half of Turkey and Greece; and the central chain of the Caucasus.

Those parts principally occupied by secondary formations are: the lowlands of Scotland; the central half of Ireland; the N.E., central, and most of the southern counties of England; most part of France and western Germany; the loftiest summits of the Pyrenees; the country on either side of the central chain of the Alps; central and S. Italy; the N. of Sicily; Istria; Dalmatia; the W. half of Turkey and Greece; Galicia; and the E. parts of Transylvania; some considerable tracts on the Wolga and Kami; and the N. declivity of the Caucasus.

The rest of Europe,—comprising nearly the whole of Russia, Poland, and the Prussian dominions; a large extent of country on both sides of the Gulf of Bothnia; all Denmark, N.W. Germany, and Holland; a great part of Belgium; the E. and many of the W. counties of England; the basins of Paris, and of the Rhone, Loire, and Garonne, in France; the N. part of Switzerland; the plains of Hungary, Lombardy, Wallachia, and Bulgaria; most of Apulia; and the southern and western parts of Sicily,—is composed chiefly of tertiary, alluvial, or diluvial formations; and has been obviously submerged at no very remote geological period.

Natural Productions, Metals and Minerals.—If nature has denied to Europe the precious metals in any very great quantity, their absence has been fully counterbalanced by the presence of iron, coal, salt, copper, tin, lead, and mercury, in greater abundance, perhaps, than in any other re-

gion of similar extent. Iron and salt are pretty universally diffused; coal, the most important of all minerals, is most plentiful in W. Europe, and especially in Great Britain. Copper abounds chiefly in the N. and W.; in Sweden, and the extreme W. counties of England; and the tin mines of Cornwall are not only the most productive, but probably the most ancient in the world. Lead is most plentiful in Spain and England. The quicksilver mines of Idria, in the Austrian Empire, are extremely rich. Gold, silver, and platinum, are found; the first chiefly in Transylvania, Hungary, and Russia; the second in various parts of central and western Europe; and the last has been recently discovered in the Caucasian and Uralian mountains. Zinc, cobalt, arsenic, and nearly all the other metals with which we are acquainted, are found within the limits of Europe, with almost every variety of precious stones. North Italy yields the finest statuary marble, and the south part of the same country and Sicily supply immense quantities of sulphur, vitriol, sal-ammoniac, and various other volcanic products. Nitre is found in great quantities in Hungary. Besides these products, Europe furnishes the finest granite and building-stone of various kinds, serpentine, slate, porcelain-clay, rock-crystal, alabaster, and most of the minerals that are in the highest degree useful to man.

The extraordinary value, and comparative importance, of the mineral productions of the British Islands, may be inferred from the estimated fact that, England alone furnishes twelve-thirteenths of the whole quantity of *tin* produced in Europe, nearly half the entire quantity of *copper*, and one-third of the total supply of *iron*. The quantity of *coal* annually raised in Great Britain is more than twice as great as the total produce of Belgium, France, and the United States, and probably equal to at least a third part of the entire produce of the globe.

The following table exhibits a summary of the principal mineral productions of Europe, the countries being named in the order of the relative importance of their produce :—

Diamond.—Russia.

Other precious Stones.—Russia, Bohemia, Hungary, Transylvania, Saxony.

Gold.—Russia, Hungary, Transylvania.

Silver.—Bohemia, Hungary, Transylvania, Saxony, Hanover, Turkey, Norway, Spain.

Platinum.—Russia.

Quicksilver.—Illyria, Spain, Bavaria.

Iron.—British Islands, Belgium, France, Russia, Germany, Sweden and Norway, Italy, Spain.

Lead.—Spain, British Islands, Illyria, Hungary, Bohemia, Germany, France, Norway.

Copper.—British Islands, Russia, Hungary, Sweden and Norway, Turkey, Germany, Spain.

Zinc.—Great Britain, Belgium, Germany.

Tin.—England, Spain.

Coal.—British Islands, Belgium, France, Germany, Russia, Sweden, Hungary.

Salt.—Russia, Austrian Poland (Galicia), France, Spain, British Islands, Portugal, Germany, Italy, Sweden and Norway, Ionian Islands, Greece.

Vegetable Products.—The soil of the different countries of Europe is, on the whole, fertile, and produces all the vegetable substances of temperate climates. In the peninsulas of the S., where the vegetation resembles that of the tropics, the sugar-cane, the cotton-plant, the orange, citron, fig, pomegranate, vine, rice, and tobacco are cultivated; and the trees comprise the chesnut, oak, and pine. In the central regions, comprising France, Switzerland, and the valleys of the Rhine, Elbe, Danube, and Theiss, and on the shores of the Black and Caspian seas, the vine is

cultivated with success; the orchards supply the walnut, peach, apricot, apple, and pear; wheat, rye, and in some places tobacco and maize, are cultivated; the poplar is common, the chesnut is rare, and the forests comprise the oak, beech, and fir. In the British Islands and the greater part of lower Europe valuable grain is cultivated, and the forests produce the oak, beech, birch, and pine. In the N. of Europe barley and oats are cultivated as far as 60° N. lat. in Lapland, and the forests produce the pine and the birch; the N. of Russia is incapable of producing any kind of grain.

Animals.—The *fauna* of Europe is less varied than that of the other continents of the Old World, but is rich in useful animals, and exempt from the noxious species common to Asia and Africa. The horse, cow, ass, sheep, goat, pig, and dog, are distributed nearly all over the continent; the buffalo inhabits the marshy plains of Italy, Wallachia, and Hungary; and the camel is found near the Black Sea. In the N. of Europe, the rein-deer renders valuable service to man; many quadrupeds yield furs, and the eider-duck furnishes the down so valuable in commerce. The forests are peopled with hares, foxes, deer, and wild boars; the wolf and the bear are common in Scandinavia. In the higher Alps and the Pyrenees are found the chamois, the wild goat, the bear, and the eagle. The birds of prey comprise the vulture, kite, eagle, and falcon.

Races of Men.—The population of Europe belongs entirely to the Indo-European family of the Caucasian race, (except a few Mongolian tribes in the N. and E. of the continent). The varieties of this family consist of the *Teutonic* or *German*, distributed over the central parts of the continent, and those which lie around the Baltic Sea; the *Sclavonian* in the centre and E.; the *Hellenic* and *Pelagian* in the S.; the *Celtic* in some small portions of the W. The S., and also a large portion of the W. of

Europe, is principally occupied by nations of mixed blood, resulting from the intermarriage of members of these three great families.

The small remaining portion of the people of Europe, not belonging to the Caucasian variety, consists principally of,—1st. The Turks, who occupy a part of its S.E. peninsula; 2ndly, The Magyars, who form the great majority of the population in Hungary and Transylvania; 3rdly, The Finns and Laplanders, who occupy the most northern parts of the Scandinavian peninsula, and the countries between the Gulf of Bothnia and the White Sea; 4thly, The Samoiedes, in the N.E. part of the continent, along the shores of the Arctic Ocean; and 5thly, The Kalmucks, and other nations of Tartar origin, who occupy the steppes of the S.E. of Russia. All of these are members of the Mongolian variety of mankind, and have derived their origin from Asia.

Languages.—The languages spoken in Europe may be classed under three principal headings; namely, the *Teutonic*, the *Sclavonian*, and the *Greco-Latin* families.

The *Teutonic* languages are spoken in England, the S. of Scotland, Norway and Sweden, Denmark, Holland, the greater part of Belgium, and nearly the whole of Germany.

The *Sclavonic* languages, coincidently with the same family of people, prevail in Sclavonia, Bosnia, Servia, Bulgaria, Wallachia, Bohemia, Moravia, Poland, and the southern half of Russia.

The *Greco-Latin* family belongs to the S. of Europe, and comprehends the Portuguese, Spanish, French, Italian, and modern Greek tongues.

The Celtic languages are every where becoming more restricted in range, and are gradually supplanted by others; they are now confined to a portion of the native inhabitants of Ireland, to parts of Scotland, Wales, and the N.W. of France.

All the above-mentioned families of language belong to the *Indo-European* class, which embraces the various

tongues spoken throughout the wide space between the western shores of Europe, and the banks of the River Ganges, in the south of Asia.

Religion.—Christianity, in its different forms, is professed by a great majority (more than nineteen-twentieths) of the inhabitants of Europe. The Roman Catholic (or western) Church is dominant in the S. and W. of Europe, in Italy, Spain, and Portugal, France, Belgium, a great part of Austria, some of the German States, Switzerland, and Ireland. The Protestant religion prevails in Prussia, Saxony, Wurtemberg, Hanover, and several of the German States, Denmark, Sweden, Norway, Switzerland, and England and Scotland, as well as in parts of France, Austria, and the Baltic provinces of Russia. The Greek or Eastern Church prevails in Russia, Greece, the Ionian Islands, Servia, Moldavia, and Wallachia; parts of Turkey, Hungary, Transylvania, Croatia, Sclavonia, and Dalmatia. The Jews are scattered over the whole of Europe, but are especially numerous in Poland. Mohammedanism is confined to Turkey and the extreme S. part of Russia.

Government.—Various forms of government are found in Europe; but they may be distributed into the three great classes of *absolute* and *limited monarchies*, and *republics*.

Political Division.—Europe is divided into about fifty-five independent states. At the head of these states are Great Britain, Russia, France, Austria, and Prussia, called, *par excellence*, the five great powers. The states of the second rank are Spain, Sweden, and Turkey; those of the third, Holland, Belgium, Portugal, Naples, Bavaria, Sardinia, Denmark, Saxony, Wurtemberg, Hanover, and the Swiss Confederation; and those of the fourth comprise the remainder.

GREAT BRITAIN AND IRELAND.

The great importance of an acquaintance with the geography of our native land makes it necessary to describe the British Islands at greater length than other countries, and the maritime supremacy and commercial greatness of the British Empire entitle it to the first place among the nations of Europe. It will be described under the three heads of—England (with Wales), Scotland, and Ireland,

I. ENGLAND AND WALES.

Extent and Boundaries.—England (including Wales) is bounded on the *N.* by *Scotland*; on the *W.* by the *Irish Sea*, *St. George's Channel*, and the *Atlantic Ocean*; on the *S.* by the *English Channel*; and on the *E.* by the *German Ocean*. The line of division between England and Scotland is formed by the lower course of the river *Tweed*, the *Cheviot Hills*, and the estuary of the *Solway Firth*. Its length from *Berwick* to the *Land's End* is 490 miles; its breadth from *E.* to *W.* varies from 67 to 320 miles. The total area of England and Wales is 57,813 square miles, *i. e.* 50,387 of England, and 7426 of Wales. The length of coast line is upwards of 1800 miles. Its shape approaches nearest to that of a triangle, of which *Berwick* may be considered the apex, and a line from the *Land's End* to the *North Foreland* (342 miles) the base; a line from the former along the *W.* side (426 miles), and from the latter along the *E.* side (334 miles), complete the figure.

Surface of the Land.—The surface is elevated in the *N.*, and in the *W.*, where it borders on Wales; a region in the centre is gently undulated; and along the *E.* shore extends into alluvial plains and low marshy ground. The principal summits are in the *N.*, where *Scawfell* rises to an elevation of 3166 feet, and *Helvellyn* to 3055 feet. A moun-

tain range there, continuous with ranges in S. Scotland, mostly separates the counties of Northumberland, Durham, and York on the E. from Cumberland, Westmoreland, and Lancashire on the W.; and continuing southwards through the counties of Derby and Warwick, unites itself to the high lands of the S. by the Coteswold Hills (in Gloucestershire), having separated the basins of the rivers Tyne, Tees, Humber, Trent, and Thames, from those of the Severn, Mersey, and Eden. The mountain system of S. England has its centre in Salisbury Plain and Marlborough Downs (in Wilts), whence proceed two long chains, the S. and N. Downs, through the counties of Hampshire, Sussex, Surrey, and Kent; a third range N. of the Thames, and which in the counties of Oxford and Bucks receives the name of the Chiltern Hills; some ranges further north-eastward; and a prolongation to the south-west; the last, in the centre of Devonshire, expands into the region of Dartmoor, where Cawsand Hill has an elevation of 1782 feet.

ENGLISH AND WELSH MOUNTAINS.

	COUNTY.	FEET.
Snowdon	Caernarvon . .	3571
Helvellyn	Cumberland . .	3055
Skiddaw	Cumberland . .	3022
Cader Idris	Caernarvon . .	2914
Beacons of Brecknock	Brecknock . .	2862
Cheviot Hills	Northumberland .	2658
Plynlimmon	Cardigan . .	2463
Wharfedale (in Singleton Fells)	Yorkshire . .	2384
Wharfedale (in Kettlewell)	Yorkshire . .	2263
Ingleborough	Yorkshire . .	2361
Malvern Hills	Worcestershire .	1444

Rivers.—The principal rivers are the Severn, Medway, Dee, Mersey, on the W. coast; and the Thames, Trent, Humber, and Tyne on the E. With the exception of the

Severn, most of the principal streams flow towards the E. coast, into the German Ocean. This results from the fact (before stated) that, the highest elevations of the land are situated nearer the western than the eastern shores, so that the general slope of the entire island is directed from W. to E.

Besides these there are on the N., the Ouse, Derwent, Aire, Don, and Wharf, all tributaries to the Humber; the Wear and Coquet farther N., and the Nen, S. Ouse, Waveney, Stour, and Medway, all disemboing on the E.; the Wye, Usk, Teme, and Upper and Lower Avon, affluents of the Severn, besides the Ribble, Parrott, Taw, and Torridge, entering the sea on the W.; and the Tamar, Dart, Exe, Frome, Stour, Avon (of Hampshire), Anton, and Arun, on the S. coast.

Lakes.—Lakes are mostly confined to Westmoreland, Cumberland (near the group of the Cumbrian Mountains), and Lancashire; where are Windermere, Ulleswater, Conistone, Derwent, and Bassenthwaite. In the S. Whitte-sea-mere (in Huntingdonshire) is the only collection of fresh water deserving notice.

Harbours and Sea-ports.—The coasts of England are extremely irregular, and abound with inlets. On the W. are the important harbours of Liverpool, Preston, Whitehaven, Milford Haven, Cardiff, Bristol, and Gloucester. On the S. coasts are the harbours of Falmouth, Plymouth, Dartmouth, Torquay, Exmouth, Weymouth, Poole, Southampton, and Portsmouth. On the E. are the ports of London, Chatham, Sheerness, Dover, Harwich, Ipswich, Yarmouth, Lynn, Boston, Hull, Scarborough, Whitby, Stockton, Hartlepool, Shields, Sunderland, Newcastle, and Berwick.

The towns of Sandwich, Deal, Dover, Hythe, and New Romney (all in Kent), with Rye, Winchelsea, and Hastings (in Sussex), are distinguished as *cinque ports*. They were originally five in number (whence the name), but three others were subsequently added.

Inhabitants.—The population of England and Wales, according to the census taken in 1851, was as follows:—

England	16,920,736
Wales	1,005,833
	<hr/>
Total	17,926,569
	<hr/>

Industrial Pursuits.—Until the latter part of the last century, agricultural pursuits engaged the attention of the larger proportion of the labouring population, and constituted the characteristic feature of the national industry. But since the establishment and rapid growth of the cotton manufacture, the proportion of the inhabitants engaged in manufacturing and commercial pursuits has been steadily increasing.

Manufactures.—Great Britain is unequalled by any country in the world in the immense amount and variety of her manufactured products, the skill and ingenuity of her artizans, and the wonderful contrivances of the machinery by which their labours are assisted.

The great manufactures are those of woven and felted materials, and metals or hardware; and of these cotton (the great seat of which is S. Lancashire), wool (chiefly in W. Yorkshire), and next in importance iron (carried on in Salop, Staffordshire, Birmingham, Sheffield, and London), are by far the most important. Next in importance are the manufacture of leather, silk, linen, glass and earthenware, watch and clock works (in Lancashire), and jewellery, paper, and hats.

Ship-building is a most important branch of industry: the largest ships of the line are built at the great dock-yards of Portsmouth, Plymouth, and Chatham; and others at Sheerness and Deptford. Mercantile vessels of large burden are chiefly built in or near London, Liverpool,

Sunderland, Newcastle, Hull, Yarmouth, Southampton, Bristol, and Dover.

Commerce.—The foreign commerce of Great Britain is more considerable than that of any other country, and extends to the most distant parts of the globe. It consists chiefly of the import of raw materials and tropical produce, and the export of manufactured goods,—our ships in many cases carrying back to distant countries, in a manufactured state, articles (especially cotton) originally brought from thence in the condition of unworked material.

The principal ports for the foreign trade are London, Liverpool, Hull, *Stockton*, and Southampton; for the Irish trade Bristol and Liverpool; and for the coasting trade in general, Newcastle, Gloucester, Plymouth, Whitehaven, and Sunderland.

Internal Communication.—Internal communication is effected by numerous navigable canals, and in every direction by the best turnpike-roads of any country in the world; but both these means of traffic have been in a great part superseded by a most extensive series of *railways*, which already extends like a net-work over the greater part of the kingdom. *London*, though placed near one extremity of England, is the great centre of the principal railways; from it branch out the Great Western to Bristol, Exeter, and Plymouth; the South-Western to Southampton, Gosport, and Portsmouth; the South-Eastern to Dover; the North-Kent; the Eastern Counties to Norwich and Yarmouth; the Great Northern to York; and the North-Western to Birmingham, &c. *Manchester, Derby, Leeds, York, and Stockton*, are centres of numerous railways.

In January, 1849, no fewer than 5007 miles of railway were open for traffic in the United Kingdom, 2160 miles were in course of construction, and an additional extent of 2400 was contemplated.

A TABLE OF THE PRINCIPAL LINES OF RAILWAY
OPEN IN THE UNITED KINGDOM IN 1849, WITH
THEIR LENGTH.

Names.	Length.	Names.	Length.
	MILES.		MILES.
Aberdeen	72	Lancashire and Carlisle .	90
Belfast and Ballymena .	37½	London and North West- ern, &c.	470
Birkenhead, Lancashire, and Cheshire	16	London and Blackwall .	5½
Bristol and Exeter . .	85½	London, Brighton, and South Coast	171½
Caledonian	100	London and South West- ern	239
Chester and Holyhead .	94½	Manchester, Sheffield, and Lincolnshire . .	160½
Dublin and Drogheda .	53	Midland, Bristol, and Birmingham . . .	491½
Dublin and Kingstown .	7½	Midland Great Western (Irish)	50
Dundee, Perth, and Aberdeen	31	Newcastle and Carlisle .	60
East Anglian	61½	North British	135
Edinburgh and Glasgow	57½	North Staffordshire . .	112
Edinburgh, Perth, and Dundee	71	Scottish Central . . .	45
Eastern Counties and Northern and Eastern	322	Scottish Midland Junc- tion	32
East Lancashire . . .	75½	Shrewsbury and Chester	49
Eastern Union	95	South Eastern	234
Glasgow, Kilmarnock, and Ayr	100	South Devon	58
Glasgow, Paisley, and Greenock	22½	South Yorkshire, Don- caster, and Goole . .	69
Great Northern and East Lincoln	143	Taff Vale	40
Great Southern and Western (Irish) . . .	188	York, Newcastle, and Berwick	290½
Great Western	230	York and North Mid- land	260
Lancashire and York- shire	245½		

ENGLAND.

England is divided into *forty counties, or shires*, which may be arranged as follows :—

SIX NORTHERN COUNTIES.

Counties.	Towns.	Population (in 1851).
Northumberland	<i>Newcastle</i> ¹	87,700
	North Shields & Tynemouth.	
	Berwick-on-Tweed	10,000
Durham	<i>Durham</i>	13,100
	Sunderland	63,800
Cumberland	<i>Carlisle</i>	26,300
	Whitehaven	18,900
Westmoreland	<i>Appleby</i>	1,400
	Kendal	11,800
Yorkshire :		
West Riding	<i>York</i>	36,300
	Leeds	172,200
	Sheffield	135,300
North Riding	Scarborough	12,900
	Whitby	10,900
East Riding	Hull	84,600
	Beverley	8,900
Lancashire	<i>Lancaster</i>	14,600
	Liverpool	376,000
	Manchester	303,300
	Preston	69,500

SIX WESTERN COUNTIES.

Cheshire	<i>Chester</i>	27,700
	Stockport	53,800

¹ The *chief towns* of *counties, provinces, departments*, and other subdivisions of different states are printed throughout in *italics*, whilst the *chief cities* of kingdoms and empires are printed in *capital letters*. The population of towns under 5000 has been purposely omitted by the compiler. In a *few* instances, however, he was unable to ascertain the exact amount.

Counties.	Towns.	Population (in 1851).
Cheshire . . .	Macclesfield	39,000
Shropshire . . .	Shrewsbury	19,600
Herefordshire . . .	Hereford	12,100
	Leominster	5,200
Monmouthshire . . .	Monmouth	5,800
	Newport	19,800
Gloucestershire . . .	Gloucester	17,500
	Bristol	138,100
	Cheltenham	35,000
Wiltshire . . .	Bath	54,200
	Taunton	14,100
	Bridgewater	10,300

FOURTEEN MIDLAND COUNTIES.

Staffordshire . . .	Stafford	11,800
	Wolverhampton	49,900
	Stoke-upon-Trent	
Derbyshire . . .	Derby	40,600
	Chesterfield	11,200
	Belper	10,000
Nottinghamshire . . .	Nottingham	57,400
	Newark	11,300
	Mansfield	10,000
Leicestershire . . .	Leicester	60,500
	Loughborough	10,900
Warwickshire . . .	Warwick	10,900
	Birmingham	232,800
	Coventry	36,200
Worcestershire . . .	Worcester	27,500
	Dudley	37,900
	Kidderminster	18,400
Oxfordshire . . .	Oxford	27,900
	Banbury	8,700
	Woodstock	

Counties.	Towns.	Population (in 1851).
Buckinghamshire . . .	<i>Buckingham</i>	8,000
	<i>Aylesbury</i>	
Middlesex . . .	<i>LONDON</i>	2,362,200
	<i>Brentford</i>	8,800
Hertfordshire . . .	<i>Hertford</i>	6,600
	<i>St. Alban's</i>	7,000
Bedfordshire . . .	<i>Bedford</i>	11,600
	<i>Luton</i>	
Huntingdonshire . . .	<i>Huntingdon</i>	3,800
Northamptonshire . . .	<i>Northampton</i>	26,600
	<i>Peterborough</i>	8,600
Rutlandshire . . .	<i>Oakham</i>	

FIVE EASTERN COUNTIES.

Lincolnshire . . .	<i>Lincoln</i>	17,500
	<i>Boston</i>	14,700
	<i>Louth</i>	10,400
	<i>Grimsby</i>	
Cambridgeshire . . .	<i>Cambridge</i>	27,800
	<i>Wisbeach</i>	10,500
	<i>Ely</i>	6,100
Norfolk	<i>Norwich</i>	68,100
	<i>Yarmouth</i>	30,800
	<i>Lynn</i>	19,300
Suffolk	<i>Ipswich</i>	32,900
	<i>Bury St. Edmund's</i> . . .	13,900
Essex	<i>Chelmsford</i>	6,700
	<i>Colchester</i>	19,400

NINE SOUTHERN COUNTIES.

Kent	<i>Maidstone</i>	20,700
	<i>Chatham</i>	28,400
	<i>Woolwich</i>	25,700

Counties.	Towns.	Population (in 1851).
Kent	Dover	22,200
	Canterbury	18,300
Surrey	Guildford	6,700
	Southwark } included in	
	Lambeth } London .	
	Croydon	10,200
	Kingston	6,000
	Richmond	9,000
Sussex	Lewes	9,500
	Brighton	69,600
	Hastings	16,900
	Chichester	8,600
Berkshire	Reading	21,400
	Windsor	9,500
Hampshire	Winchester	13,700
	Portsmouth	72,000
	Southampton	35,300
Isle of Wight	Newport	8,000
	Ryde	7,100
	Cowes	
Wiltshire	Salisbury	11,600
	Trowbridge	10,100
	Devizes	6,500
Dorsetshire	Dorchester	6,300
	Weymouth	9,400
	Poole	9,200
Devonshire	Exeter	40,600
	Plymouth	52,200
	Devonport	38,100
	Barnstaple	11,300
Cornwall	Truro	10,700
	Penryn and Falmouth .	13,200
	Bodmin	
	Launceston	

WALES.

SIX COUNTIES IN NORTH WALES.

Counties.	Towns.	Population (in 1851).
Anglesea	<i>Beaumaris</i>	
	Holyhead	5,600
Caernarvonshire . .	<i>Caernarvon</i>	8,600
	Bangor	6,300
Denbighshire . . .	<i>Denbigh</i>	5,400
	Wrexham	
Flintshire	<i>Mold</i>	
	Holywell	
	Flint	
	St. Asaph	
Merionethshire . .	<i>Dolgelly</i>	
	Bala	
Montgomeryshire .	<i>Montgomery</i>	
	Newtown	6,300

SIX COUNTIES IN SOUTH WALES.

Cardiganshire . . .	<i>Cardigan</i>	
	Aberystwith	5,200
Radnorshire . . .	<i>New Radnor</i>	
Brecknockshire . .	<i>Brecon, or Brecknock</i>	5,700
Glamorganshire . .	<i>Cardiff</i>	18,300
	Merthyr Tydvil	60,000
	Swansea	31,400
Caermarthenshire .	<i>Caermarthen</i>	10,500
Pembrokeshire . . .	<i>Pembroke</i>	10,100
	Haverfordwest	6,500
	St. David's	
	Milford	

ISLANDS OFF THE COAST OF ENGLAND.

The *Isle of Man*.—Situated in the Irish Sea, area 280

square miles, population 47,975. Chief towns, *Castletown*, *Douglas*, *Peel*, and *Ramsey*.

The *Channel Islands*, off the coast of France, belong to Great Britain.

	Area in square miles.	Pop.	Capital.
Jersey	62	47,500	<i>St. Helier.</i>
Guernsey	23	26,700	<i>St. Pierre.</i>
Alderney	5	1,000	
Sark	3	800	

The *Scilly Islands*, off the coast of Cornwall, consist of about 140 islets and rocks, the principal of the former being *St. Mary's*, *Tresco*, *St. Martin's*, *Brechar*, *St. Agnes*, and *Sampson*. Aggregate area, 5770 acres. Population, 2500. Capital, *Hugh-Town* (on *St. Mary's*).

SCOTLAND.

Extent and Boundaries.—Scotland constitutes the northern portion of the island of Great Britain. It is bounded on the *N.* and *W.* by the *Atlantic Ocean*, on the *S.* by *England* and part of the *Irish Sea*, and on the *E.* by the *North Sea*. It is separated from England by a waving line of the *Cheviot Hills* in the centre, by the *Tweed* on the *E.*, and by the *Solway Firth* on the *W.* It is of an oblong, irregular form, extending longitudinally due *N.* and *S.* 280 miles, and varying in breadth from 175 to 100, 50, and 30 miles. Estimated area, including islands, 28,896 square miles; population (1851) 2,870,184.

Natural Features of Surface.—The greater part of the surface is irregularly distributed into mountain and valley, a very small proportion extending into level plains. The eastern side is bounded by a well defined continuous waving line of coast, indented by the four estuaries of the *Forth*, *Tay*, *Moray*, and *Dornoch Firths*. The western side is very irregular, being broken up by innumerable headlands and bays, and thickly studded by islands of

various magnitudes. The Solway Firth, the Firth of Clyde, Loch Fine, Loch Linnhe, Loch Carron, and Loch Broom, are here among the most conspicuous estuaries and bays. Scotland is divided into the *Lowlands*, comprehending that portion S. of the Tay, and the low country all along the E. and N.E. coasts, and the *Highlands* comprehending the central, and western, and north-western portions; but for the purpose of geographical description, it will be best to regard it as divided into three parts, viz., northern, middle, and southern Scotland. The middle region is the most elevated portion, and in general the greatest elevation of land exists towards the W. and N. coasts, while the country slopes gradually towards the E. The Grampian ranges of mountains, commencing with Ben Nevis, S.W. corner of Inverness-shire, extend in a N.E. direction, intersecting the whole breadth of Scotland to near the E. shores in Aberdeenshire, and forming, with their off-sets, an extensive mountain chain, with elevations varying from 4375 to 3000 and 2000 feet. This central region extends S. to the Tay, and N. and N.W. to the borders of the Moray Firth. The great valley of the Caledonian canal separates this middle region into two, but a continuation of the same mountains extends also through Sutherlandshire, terminating at Cape Wrath.

SCOTCH MOUNTAINS.

	County.	Feet.
Ben Nevis . . .	Inverness . . .	4370
Cairngorm . . .	Inverness . . .	4095
Ben Wyvis . . .	Ross	3720
Ben Lawers . . .	Perth	3945
Ben More . . .	Perth	3819
Schihallion . . .	Perth	3513
Ben Voerlick . .	Perth	3180
Ben Lomond . . .	Stirling	3195
Ben Ledi	Perth	2863

Rivers. — The principal rivers in Scotland are the

Tweed, Forth, Tay, N. and S. Esks, Dee, Don, Spey, Deveron, Lossie, Findhorn, Ness, Conon, Brora, Wick, and Helmsdale on the eastern side; the Nith, Annan, Dee, Cree, Ayre, Doone, and Clyde on the S. and W.; while no conspicuous rivers flow into the ocean on the W. or N.W. coasts.

Lakes.—The *lochs*, or fresh-water lakes of Scotland, comprise Loch Lomond, the largest lake in Great Britain, being about 24 miles in length, and about 7 or $7\frac{1}{2}$ broad in the widest part. The next in magnitude are Lochs Awe, Ness, Maree, Tay, Shin, &c., in the shires of Argyle, Ross, Perth, and Sutherland. Most of these are long, narrow, and deep, filling up the bottoms of the valleys between the mountains.

Harbours and Ports.—The principal harbours are those of Leith, Grangemouth, Queensferry, and Burntisland, in the Firth of Forth; Dundee and Perth in the Firth of Tay; Montrose, Aberdeen, and Peterhead, between the Tay and Buchan Ness; Greenock and Glasgow, in the Firth of Clyde.

Mineral Products.—Coal and iron are the most considerable of the mineral productions of Scotland, and are chiefly confined to the southern division of the country, and the peninsula of Fife. Lead is found in considerable quantities in the tract of the Lowther Hills, on the borders of Lanark and Dumfries.

Industrial pursuits.—Scotland is at present, even in a greater ratio than England, principally a manufacturing and commercial country. The generally mountainous character of the country necessarily limits the extent of cultivation, but the manufacturing and commercial resources of its southern portion, in the abundance of its coal and iron, and the number and excellence of its harbours, are almost unbounded.

Commerce.—The foreign commerce of Scotland resembles that of England. Her imports consist of the raw materials required for manufacturing purposes, chiefly

cotton. The exports are chiefly manufactured goods, cotton and iron works, machinery, coals, &c.

Internal Communication.—Excellent roads now extend through almost every part of the country, and cross even the most mountainous tracts of the Highlands.

Of *Canals* the two principal are, the Forth and Clyde canal, which connects the entrance of those rivers, and the Caledonian canal, already mentioned.

Nearly all the principal cities in Scotland are now connected by *railways*. There are no fewer than three lines of railway from England to Scotland; viz., the Eastern line by Newcastle, Berwick, and Dunbar; the central or Caledonian line by Carlisle, Ecclefechan, and Lanark; and the Western line by Carlisle, Dumfries, Sanquhar, and Kilmarnock. Edinburgh and Glasgow are united by a railway; as are Edinburgh, Dundee, and Aberdeen; Glasgow, Stirling, Perth, Dundee, &c.; Glasgow, Greenock, Ayr, &c. There is uninterrupted communication by railway between London and Aberdeen (550 miles).

NATIONAL DIVISIONS.—Scotland is divided into thirty-three counties or shires, the names of which are as follow (beginning with those adjacent to England, and proceeding northwards):—

THE SOUTHERN LOWLANDS (13 Counties).

Counties.	Towns.	Population (in 1851).
Berwick	<i>Greenlaw</i>	
	<i>Dunse</i>	
Haddington . . .	<i>Haddington</i>	5,400
	<i>Dunbar</i>	
Edinburgh . . .	EDINBURGH	160,300
	<i>Leith</i>	30,900
Linlithgow . . .	<i>Linlithgow</i>	5,900
Roxburgh	<i>Jedburgh</i>	5,100
	<i>Hawick</i>	
Selkirk	<i>Selkirk</i>	

Counties.	Towns.	Population (in 1851).
Peebles	<i>Peebles</i>	
Dumfries	<i>Dumfries</i>	13,100
Kirkcudbright . .	<i>Kirkcudbright</i>	
Wigton	<i>Wigton</i>	
Ayr	<i>Ayr</i>	17,600
Kilmarnock	<i>Kilmarnock</i>	21,400
Lanark	<i>Lanark</i>	5,300
Glasgow	<i>Glasgow</i>	329,000
Hamilton	<i>Hamilton</i>	9,600
Renfrew	<i>Renfrew</i>	
Paisley	<i>Paisley</i>	47,900
Greenock	<i>Greenock</i>	36,600

The NORTHERN LOWLANDS embrace part of Stirling, a full part of Perthshire, the counties of Clackmannan, Perth, Fife, Forfar, Kincardine, and parts of Aberdeen, Banff, Elgin, Nairn, and Caithness.

Counties.	Towns.	Population.
Stirling	<i>Stirling</i>	9,300
Falkirk	<i>Falkirk</i>	8,700
Perth	<i>Perth</i>	23,700
Clackmannan . . .	<i>Clackmannan</i>	
Kinross	<i>Kinross</i>	
Cupar	<i>Cupar</i>	4,000
Dunfermline	<i>Dunfermline</i>	13,800
Forfar	<i>Forfar</i>	9,300
Dundee	<i>Dundee</i>	78,900
Montrose	<i>Montrose</i>	15,200
Stonehaven	<i>Stonehaven</i>	
Aberdeen	<i>Aberdeen</i>	71,900
Peterhead	<i>Peterhead</i>	7,200
Banff	<i>Banff</i>	6,000
Elgin	<i>Elgin</i>	6,300
Nairn	<i>Nairn</i>	
Wick	<i>Wick</i>	6,700

The SOUTHERN HIGHLANDS embrace the counties of Bute, Dumbarton, Argyle, part of Stirling, and the greater part of Perth.

Counties.	Towns.	Population.
Bute	<i>Rothsay</i>	7,100
Dumbarton	<i>Dumbarton</i>	4,500
	<i>Kirkintulloch</i>	
Argyle	<i>Inverary</i>	
	<i>Campbeltown</i>	6,800

The NORTHERN HIGHLANDS comprehend the counties of Inverness, Ross, Cromarty, and Sutherland, with parts of Aberdeen, Banff, Elgin, Nairn, and Caithness.

Counties.	Towns.	Population.
Inverness	<i>Inverness</i>	12,700
Ross	<i>Tain</i>	
	<i>Dingwall</i>	
Cromarty	<i>Cromarty</i>	
Sutherland	<i>Dornoch</i>	
Orkney and } . . .	<i>Kirkwall</i>	
Shetland . } . . .	<i>Lerwick</i>	

Islands.—There are few or no islands off the E. coast, but many of large size lie contiguous to and off the W. coast. These are mostly included under the *Hebrides*. The islands of Orkney and Shetland lie off the N. coast. The islands of Bute, Arran, and the Great and Little Cumbray, form the county of Bute. In the *Hebrides*, the island of Lewis belongs to Ross. Harris, and the rest of the Long Island, with Skye, form part of the county of Inverness; and Mull, Jura, Islay, and the smaller adjacent islands belong to the shire of Argyle.

IRELAND.

Extent and Boundaries.—Ireland is situated to the W. of Great Britain, and is bounded on the N.W. and S. by the *Atlantic Ocean*, and on the E. by the *Irish Sea*, which communicates with the ocean by the North Channel and St. George's Channel. The distance from St. David's Head, in S. Wales, across St. George's Channel, to Carnsore Point in Ireland, is about 47 miles, and from the Mull of Cantire, across the North Channel, to Fair Head in Ireland, is only $13\frac{1}{2}$ miles. Its area is estimated at 32,512 square miles. Mean length of the island from Malin Head to the S. coast of Waterford, about 220 miles; mean breadth, about 140 miles.

The mean length and breadth of Ireland bear a less unequal proportion to one another than is the case either with England or Scotland; and as a whole, the island has a squarer and more compact form, and no part of the land is more than 50 or 55 miles from the coast.

Ireland is of an oblong form, with a waved continuous outline on the E. coast, but deeply indented by numerous inlets on its other sides, with rock-bound coasts N. and W.

Surface of the Country.—As contrasted with Scotland, or even the greater part of England, Ireland may be said to be a flat country. Most of its mountains, as the Wicklow and Mourne (Co. Down) mountains, those of Donegal, Mayo, Galway, and Kerry, are in isolated groups towards the coasts and extremities of the island. The central portion of Ireland consists of a vast tract of level land, broken in some places by a few undulating hill ranges; but, for a great part of its extent, nearly an uninterrupted flat, extending in some parts, as between Dublin and the Bay of Galway, quite from sea to sea.

This great level consists partly of rich cultivated land; but it also comprises a vast extent of bog (estimated to cover 12,500 square miles), partly in Kildare, King's County, and Roscommon, and partly in Meath, Westmeath, and Queen's County. Though not continuous, these bogs differ but little in elevation; and being in many parts separated only by narrow ridges of dry land, they have received the common appellation of the *Bog of Allen*. Several rivers have their sources in this bog, the highest part of which may be elevated not above 300 feet above the level of the sea.

IRISH MOUNTAINS.

	County.	Feet.
Macgillicuddy's Reeks (highest point <i>Carn Tual</i>) }	Kerry . . .	3404
Lugnaquilla	Wicklow . .	3039
Mangerton	Kerry . . .	2754
Mourne Mountains (highest point, <i>Sliebh Donard</i>) . . }	Down . . .	2796
Croagh Patrick	Mayo . . .	2499
Nephin	Mayo . . .	2369

Rivers.—Ireland is well watered. The principal rivers are the Shannon, Barrow, Blackwater, Suir, Nore, Bann, Foyle, Boyne, Slaney, Liffey, Bandon, and Erne.

Lakes.—The principal lakes are, Lough Neagh and Lough Erne, in Ulster; Lough Allen, Corrib, Mask, and Dege, in Connaught; and the Lakes of Killarney, in Munster.

Loughs Strangford, Belfast, Foyle, and Swilley, on the N. and N.E. coasts, are inlets of the sea. The other principal inlets are Dundrum, Carlingford, Dundalk, and Dublin Bays, on the E.; and Bantry, Dunmanus, Dingle, Tralee, Galway, Clew, Blacksod, Killala, Sligo, and Donegal Bays, with the estuaries of the Shannon and Kenmare rivers on the W. coast.

Mineral Products.—The mineral products of Ireland

comprise *marble* of the finest quality (in the counties of Donegal and Galway), *coal* (in the counties of Kilkenny, Tipperary, Limerick, Cork, Kerry, Clare, Leitrim, Tyrone, and Antrim), *copper and lead* (in the counties of Waterford, Cork, and Kerry, and copper in Wicklow), antimony, manganese, fuller's earth, slate and peat from the bogs.

Climate.—The climate of Ireland differs chiefly from that of England in its greater degree of moisture. Not only does more rain fall than in England, but the atmosphere is at all times largely impregnated with moisture. This results from the perfectly insular situation of the country, and the prevalence, during three-fourths of the year, of westerly winds, charged with the vapours of the Atlantic.

Population.—Ireland is thickly populated: in 1851, the number of its inhabitants amounted to 6,550,319. Except in the mountainous districts, the population is pretty equally distributed throughout the island. It is most dense in the neighbourhood of Dublin and Cork.

Industrial Occupations: Agriculture.—Ireland is chiefly a grazing country, and large numbers of cattle of all kinds are reared, principally for export to England. Next to the potato, oats are most generally cultivated, the humidity of the climate rendering it less fitted for growing wheat and barley.

Manufactures.—Ireland is not remarkable as a manufacturing country. The principal manufacture is that of *linen* (chiefly carried on at Belfast and Armagh). Coarse woollen stuffs are made in the centre of the country, besides mixed stuffs and silks in Dublin, Waterford, and other principal cities.

Commerce.—The foreign trade of Ireland is inconsiderable compared with that carried on across the channel with Great Britain. Dublin is the principal seat of the foreign import trade; and next in order are Belfast, Cork, and

Waterford; but the export trade, both of Belfast and Cork, is more considerable than that of Dublin.

Sea Ports.—Dublin, Kingstown, Wexford, Waterford, Youghal, Cork, Kinsale, Limerick, Galway, Sligo, Londonderry, Belfast, Dundalk.

Internal Communication.—The roads in Ireland are generally good, except in the remoter and more mountainous districts. The *Grand Canal* and the *Royal Canal* connect Dublin with the Shannon, crossing the great plain which occupies the interior of the country, with branches to many of the chief towns near their course. The Shannon is extensively traversed by steam-boats both for passengers and goods.

Several lines of *railway* have been laid down, and others are being formed. The great trunk line (the Great Southern and Western) extending from Dublin to Cork, and crossed by a line partially formed between Waterford and Limerick, places the capital of the island in immediate communication with all its south and south-western parts. Other lines extend from Dublin in a westerly direction towards the province of Connaught, and northward, by Drogheda, towards Belfast.

National Divisions.—Ireland is divided into 32 counties, of which those on the E. side are generally smaller than those on the W. The names of the four provinces, Leinster, Ulster, Connaught, and Munster, are now used only as geographical divisions, though they formerly marked the limits of separate kingdoms.

LEINSTER, TWELVE COUNTIES.

Counties.	Towns.	Population (1851).
Dublin	DUBLIN	252,500
	Kingstown	10,400
Wicklow	Wicklow	
Wexford	Wexford	12,400

EUROPE.

55

Counties.	Towns.	Population (1851).
Longford	New Ross	7,000
Kilkenny	Kilkenny	15,800
Carlow	Carlow	9,100
Wick	Athy	
	Naas	
Wexford	Maryborough	
	Portarlington	
Down	Tullamore	
	Parsonstown	5,500
Meath	Mullingar	5,500
	Athlone	
Longford	Longford	
Trim	Trim	
	Navan	
Dublin	Dundalk	9,900
	Drogheda	16,800

ULSTER, NINE COUNTIES.

Armagh	Armagh	9,000
Down	Downpatrick	
	Newry	13,500
Monaghan	Carrickfergus	
	Belfast	97,800
	Lisburn	6,300
Londonderry . . .	Londonderry	19,600
	Coleraine	5,700
Magallowish	Lifford	
Donegal	Omagh	
	Strabane	
	Dungannon	
Enniskillen	Enniskillen	5,700
Monaghan	Monaghan	
Cavan	Cavan	

CONNAUGHT, FIVE COUNTIES.

Counties.	Towns.	Population (1851).
Leitrim	<i>Carrick-on-Shannon</i>	
Roscommon	<i>Roscommon</i>	
Sligo	<i>Sligo</i>	11,400
Mayo	<i>Castlebar</i>	
Galway	<i>Galway</i>	20,900

MUNSTER, SIX COUNTIES.

Clare	<i>Ennis</i>	8,600
Limerick	<i>Limerick</i>	53,200
Tipperary	<i>Clonmel</i>	12,300
	<i>Carrick-on-Suir</i>	8,300
	<i>Tipperary</i>	6,800
	<i>Thurles</i>	5,900
Waterford	<i>Waterford</i>	24,700
	<i>Dungarvan</i>	6,400
Cork	<i>Cork</i>	84,100
	<i>Youghal</i>	7,400
	<i>Bandon</i>	6,900
	<i>Kinsale</i>	5,500
Kerry	<i>Tralee</i>	9,900
	<i>Killarney</i>	5,900

Islands.—These are all of small size, and lie closely adjacent to the coast. On the E. side are Dalkey Island, Ireland's Eye, and Lambay Island. On the N. coast are, Rathlin, Inch, and Tory Islands. On the W. are Arranmare, Achil Island (95 square miles in area), Clare Island, and the group of the Arran Islands at the entrance of Galway Harbour. On the S.W. coast is a group of 12 islets, called the Blaskets. Further S. is Valentia Island (area 40 square miles), Cape Clear Island, and Spike Island, on the W. side of Cork Harbour.

Army and Navy.—Great Britain is distinguished rather as a naval than a military power. The standing *army* amounts to 138,769 men, of whom 24,922 are under the pay of the East India Company. The *navy* consists of 671 vessels, of which about 240 are in commission, including 98 steamers.

LITARY POSTS IN GREAT BRITAIN AND IRELAND.

I. ENGLAND AND WALES.

ations.	Counties.
ningham	Warwick.
ghton	Sussex.
tol	Gloucester.
y	Suffolk.
terbury	Kent.
tham	Kent.
chester	Sussex.
onport	Devon.
er	Kent.
rnsey	Channel Island.
inslow	Middlesex.
l	York.
he	Kent.
of Wight	
rich	Suffolk.
ey	Channel Island.
don :	
Brompton	} Middlesex.
St. George's Barracks	
Hyde Park	
St. John's Wood	
Portman-street	
The Tower	
Wellington Barracks	
dstone	Kent.
chester	Lancashire.
castle	Northumberland.
port	Isle of Wight.
hampton	Northampton.
ingham	Nottingham.

Stations.	Counties.
Pembroke	Pembroke.
Plymouth	Devon.
Portsmouth	Hants.
Preston	Lancashire.
Walmer	Kent.
Weedon	Northampton.
Winchester	Hants.
York	York.

II. IRELAND.

Athlone	Westmeath.
Ballincollig	Cork.
Belfast	Antrim.
Birr (or Parsonstown)	King's County.
Boyle	Roscommon.
Buttevant	Cork.
Cahir	Tipperary.
Castlebar	Mayo.
Clare Castle	Clare.
Clonmel	Tipperary.
Cork	Cork.
Dublin	Dublin.
Dundalk	Louth.
Enniskillen	Fermanagh.
Fermoy	Cork.
Galway	Galway.
Kilkenny	Kilkenny.
Kinsale	Cork.
Limerick	Limerick.
Londonderry	Londonderry.
Mullingar	Westmeath.
Naas	Kildare.
Nenagh	Tipperary.
Newbridge	Kildare.

Stations.	Counties.
Newry	Down.
Templemore	Tipperary.
Tralee	Kerry.
Waterford	Waterford.

III. SCOTLAND.

Aberdeen	Aberdeen.
Edinburgh	Edinburgh.
Glasgow	Lanark.
Perth	Perth.
Piershill	Edinburgh.
Stirling	Stirling.

THE BRITISH EMPIRE.

The British Empire is the most powerful and extensive in the world, comprising, together with a vast extent of actual territory in all parts of the globe, a population inferior in amount only to that of the Chinese empire. Its great subdivisions, with their area and population, may be thus estimated:—

I. IN EUROPE.

	Area in sq. miles.	Population.	Date and Manner of Acquisition.	Chief Towns.
England, Wales, and Islands	57,800	17,926,500		<i>London.</i>
Scotland and Islands	29,600	2,870,100		<i>Edinburgh.</i>
Ireland	32,400	6,550,300		<i>Dublin.</i>
Isle of Man	280			<i>Castletown.</i>
Channel Islands:— Jersey, Guernsey, &c. }	207			<i>St. Helier.</i> <i>St. Pierre.</i>
Heligoland	5	2,400	capitulation 1807 . . .	
Malta and Gozo . . .	98	103,200	capit. 1800 .	<i>Valetta.</i>
Gibraltar		11,300	capit. 1704 .	

	Area in sq. miles.	Population.	Date and Manner of Acquisition.	Chief Tow
Ionian Islands— Corfu, Zante, Cephalonia, Santa Maura, Ithaca, Paxo, Cerigo.	1,092	219,700	1814	<i>Corfu.</i> <i>Zante.</i> <i>Argostoli.</i>

II. IN AMERICA.

North America :—				
Upper Canada .	141,000	575,000	capit. 1760 . cession by treaty 1763	<i>Toronto.</i>
Lower Canada .	205,860	695,300	capit. 1759 .	<i>Quebec.</i>
New Brunswick .	25,900	211,400	fisheries esta- blished by	<i>St. John.</i>
Nova Scotia . .	15,620	155,000	Henry VII.	<i>Halifax.</i>
Cape Breton . .	3,120	35,000	soon after	<i>Sydney.</i>
Prince Edward's Island . . .	2,150	47,000	their disco	<i>Charlotte T.</i>
Newfoundland .	35,850	96,000	very in 1497	<i>St. John's.</i>
Vancouver's Island	16,000	11,400		
West Indies :—				
Antigua . . .	108	36,400	settlement 1632 . .	<i>St. John's.</i>
Barbadoes . . .	166	122,400	colonized 1625	<i>Bridgetown.</i>
Dominica . . .		18,200	ceded by	<i>Roseau.</i>
Grenada . . .	138	28,900	France in 1763 . .	<i>St. George.</i>
Jamaica . . .	4,250	377,400	capit. 1655 .	<i>Spanish To</i>
Montserrat . .	47	7,300	settlemt. 1632	<i>Plymouth.</i>
Nevis . . .	20	7,400	settlemt. 1628	<i>Charlestown</i>
St. Kitt's . . .	68	21,500	settlemt. 1623	<i>Basse-terre.</i>
St. Lucia . . .	300	21,400	capit. 1803 .	<i>Castries.</i>
St. Vincent . .	130	27,200	ced. by France	<i>Kingstown.</i>
Tobago . . .		13,200	in 1763 .	<i>Scarborough</i>
Tortola . . .		8,500	settlemt. 1666	<i>Tortola.</i>
Anguilla . . .	35	2,900	settlemt 1666	
Trinidad . . .	2,000	60,300	capit. 1797 .	<i>Port of Spa</i>
Bahamas . . .	5,000	25,200	settlemt. 1629	<i>Nassau, or.</i> <i>Providen</i>
Bermudas . . .	20	9,900	settlemt. 1609	<i>Hamilton.</i>
British Guiana :—				
Demerara, Essequibo, Berbice.	76,000	102,300	capit. 1803 .	<i>George Tow</i>

	Area in sq. miles.	Population.	Date and Manner of Acquisition.	Chief Towns.
Madras	13,000	10,000	treaty 1670	<i>Balize.</i>
and Islands .			settlemt. 1833	<i>Port Louis.</i>

III. IN AFRICA.

of Good Hope	110,000	179,700	capit. 1806 .	<i>Cape Town.</i>
	18,000		settlemt. 1844	<i>Natal.</i>
Sierra Leone	300	60,000	settlemt. 1787	<i>Sierra Leone.</i>
		4,800	settlemt. 1618	<i>Bathurst.</i>
and Settlements				<i>Cape Coast</i>
				<i>Castle, Accra.</i>
Port Louis	700	161,900	capit. 1810 .	<i>Port Louis.</i>
		4,900	ceded by Hol-	
			land 1673.	<i>James Town.</i>
	35	400	1815	<i>George Town.</i>

IV. IN ASIA.

British India :—				
Presidency of Ben-				
gal	220,000	47,000,000	conquest 1757	<i>Calcutta.</i>
— Madras	130,888	14,894,800		<i>Madras.</i>
— Bombay	68,074	6,940,200		<i>Bombay.</i>
and of Ceylon .	24,664	1,421,600	ceded by the	<i>Colombo.</i>
			Dutch in	
			1815.	
N. Provinces	100,000	20,000,000		
Punjab Provinces	135,000	4,000,000	conquest 1849	<i>Lahore.</i>
Madras	60,000	1,000,000	conquest 1844	<i>Hyderabad.</i>
Shanghai			treaty 1842 .	<i>Victoria.</i>
Amoy			purchase 1839	
Asiatic Archi-				
ipelago :—				
Sumatra (in Bor-				
neo)		12,000		
Sumatra Island .			settlemt. 1847	
Farther India :—				
Assam	18,200	603,000	ceded by Bur-	<i>Ghergong.</i>
			mah in 1826	
Assam	16,500	247,700	conquest 1824	<i>Aracan.</i>
Tenasserim Pro-	32,500	118,000	conquest 1826	<i>Tenasserim.</i>
vinces			purchase 1786	<i>George Town.</i>
Langkat Island .	160	38,400	exchange 1825	<i>Malacca.</i>
Malacca	1,000	58,000	purchase 1819	<i>Singapore.</i>
Singapore	275	50,000		

V. IN AUSTRALASIA AND POLYNESIA.

South Wales .	400,000	187,000	settlemt. 1787	<i>Sydney.</i>
Diemen's Land				
(Tasmania) .	24,000	60,000	settlemt. 1803	<i>Hobart Town.</i>

	Area in sq. miles.	Population.	Date and Manner of Acquisition.	Chief Towns.
Western Australia .	40,000	4,500	settlemt. 1829	<i>Perth.</i>
South Australia . .	300,000	67,000	settlemt. 1834	<i>Adelaide.</i>
New Zealand . . .	99,500	94,000	settlemt. 1839	<i>Auckland.</i>
Victoria (or Port Philip)	80,000	77,000	settlemt. 1837	<i>Melbourne.</i>
Unoccupied regions of Australia . . .	2,180,000			
Norfolk Island . .	13			
Auckland Islands .	187			

SUMMARY IN ROUND NUMBERS.

	Area in square miles.	Population.
British Islands	120,000	27,500,000
Colonies and Dependencies in Europe .	1,200	353,000
Asia .	1,200,000	140,000,000
Africa .	219,000	608,000
America .	3,230,800	3,000,000
Australasia .	3,124,000	490,000
Total British Empire . . .	7,895,000	171,951,000

FOREIGN MILITARY STATIONS.

I. EUROPE.

<i>Station.</i>	<i>Country.</i>
Corfu . . .	Ionian Island.
Gibraltar . .	Spain.
Malta . . .	in the Mediter- ranean.
Zante . . .	Ionian Island.

II. ASIA.

Aden . . .	Arabia.
Bangalore . .	Madras.
Bombay . .	
Burmah . .	Further India.
Cannanore . .	Madras.
Cawupore . .	Bengal.
Ceylon . . .	
Deesa . . .	Bombay.
Dugshaie . .	Bengal.
Ferozepore . .	Bengal.
Hong-Kong . .	China.
Jullinder . .	Bengal.
Kirkee . . .	Bombay.
Kurrachee . .	Bombay.
Lahore . . .	Bengal.

*Station.**Country.*

Meerut . .	Bengal.
Peshawur . .	Bengal.
Poonah . .	Bombay.
Rawul-Pindee	Bengal.
Seealcote . .	Bengal.
Shub Kudder	Bengal.
Subattoo . .	Bengal.
Trichinopoly .	Madras.
Umballah . .	Bengal.
Wuzeerabad .	Bengal.

III. AFRICA.

Cape of Good Hope . .	
St. Helena . .	
Mauritius . .	

IV. AMERICA.

Antigua . .	} W. India Islands.
Barbadoes . .	
Bermuda . .	
Canada . .	
Demerara . .	British Guiana.

<i>Station. Country.</i>		V. AUSTRALASIA.	
		<i>Station.</i>	<i>Country.</i>
Fredericton .	New Brunswick.	Australia . . .	
St. John's .	Nova Scotia.	New South Wales	
Jamaica . .		New Zealand. .	
Montreal . .	Lower Canada.	Van Diemen's	
Newfoundland		Land . . .	
Quebec . .	Lower Canada.		
Trinidad . .	W. India Island.		

THE COUNTRIES OF WESTERN EUROPE.

FRANCE.

Extent and Boundaries.—France is bounded on the *N.E.* by *Belgium*, the *Grand Duchy of Luxembourg*, *Rhenish Prussia*, and *Rhenish Bavaria*. On the *E.* it is separated by the *Rhine* from *Baden*, by the chain of *Mount Jura* from *Switzerland*, by the *Rhone* from *Savoy*, and by the *Alps* from *Italy*. It is bounded on the *S.* by the *Mediterranean*, and the *Pyrenees*; *W.* by the *Atlantic Ocean*; and *N.W.* by the *English Channel*, which separates it from *England*. In form France resembles an irregular hexagon; its greatest length, from the *W.* extremity of *Finisterre* to the point of *Antibes* in *Var*, is 680 miles, and its greatest breadth, from *Givets* (*Ardennes*) to *Mount Huomba* (*Lower Pyrénées*), 585 miles. The total area of France (including *Corsica*) is 203,736 square miles (about four times the size of *England*). Its length of coast-line is 1485 miles.

General Surface of the Land.—The mean height of France is about 816 feet; the *N.* departments present vast plains, agreeably interspersed with hills; those in the *S.* and *E.* are mostly covered with mountains. Among these are, I. the *Alps*, between France and *Italy*; principal summits of which, in France, are *Pelvoux*, 14,108 feet, *Viso*, 12,692 feet, *Genevre*, 11,785 feet, and *Ventoux*, 6263 feet.—II. The *Pyrenees*, between France and *Spain*; the chief summits in France are *Perdu*, 10,994 feet, *Midi*, 9438 feet, and *Canigon*, 9137 feet.—III. The *Cevennes*, in *Languedoc*, the highest points of which are *Mezin*, 5794 feet, and *Lozère*, 4884 feet.—IV. The mountains of *Auvergne*, a branch of the *Cevennes*, the highest points of which are *Mont d'Or*, 6188 feet, *Cantal*, 6093 feet, and the *Puy-de-Dôme*,

4806 feet.—V. The Jura, between Franche-Comté and Switzerland, in which the Reculet is 5643 feet. The centre of France, comprising an eighth or tenth of its superficies, consists of plateaux from 1200 to 1900 feet in elevation, which are separated by narrow valleys.—VI. The Vosges, between Lorraine and Alsace, the summit of which is the Ballon d'Alsace, 4688 feet. The Vosges send spurs into Franche-Comté and Champagne, and are connected with the Cevennes by a chain of heights which separate the basin of the Rhone from those of the Seine and Loire, and in Burgundy are called the Côte d'Or.

Inhabitants.—France contains a population of 35,400,400. The northern half of the country is generally more populous than the southern, and contains (especially in the departments adjacent to Belgium and the shores of the English Channel) a greater number of large towns. .

Industrial Pursuits.—France is essentially an agricultural country, about three-fifths of its population being engaged in agricultural occupations. The cultivation of the *vine* forms an important and distinctive feature in French agriculture.

Manufactures.—The most important and characteristic manufacture is that of *silk fabrics* (chiefly carried on at Lyons, Nismes, Avignon, Tours, St. Etienne, and Paris): the other manufactures are those of fire-arms, jewellery, watches, clocks, leather, cotton, woollen cloths, &c. &c.

Commerce.—The foreign commerce of France consists chiefly in the import of raw material and tropical produce, the export of manufactured articles, and of the produce of her vineyards. The principal ports are Marseilles, Havre, Bordeaux, Nantes, La Rochelle, Dunkerque, Boulogne, Dieppe, St. Malo, L'Orient, Bayonne, and Cette.

Railways.—The total length of railways at present opened in France is about 1800 miles. The principal are those leading from Paris to Belgium, Rouen, Strasbourg, Orleans, Versailles, &c., with those uniting Orleans and Tours, Strasbourg and Bâle, St. Etienne and Lyons, Alais-Beaucaire and Grand-Combe, Rouen and Havre, Amiens and Boulogne, Bordeaux and Teste, Avignon and Marseilles, &c.

There are six lines of Telegraphs, all radiating from Paris, viz. to Calais, Strasbourg, Brest, Toulon, Bayonne, and Havre.

Army and Navy.—In 1848 the French army consisted 502,715 men, of whom 100,293 were cavalry. France divided into twenty-one military divisions, each under a command of a lieutenant-general.

MILITARY DIVISIONS OF FRANCE.

o. of vision.	Chief Town.	Departments which form the Division.
.	Paris.	Seine, Aisne, Eure-et-Loire, Loiret, Oise, Seine-et-Marne, Seine-et-Oise.
.	Chalons-sur-Marne.	Marne, Ardennes, Meuse.
.	Metz.	Moselle, Meurthe, Vosges.
.	Tours.	Indre-et-Loire, Loire-et-Cher, Maine-et-Loire, Mayenne, Sarthe.
.	Strasbourg.	Bas-Rhin, Haut-Rhin.
.	Besançon.	Doubs, Ain, Jura, Haute-Saône.
.	Grenoble.	Isère, Hautes-Alpes, Drôme.
.	Marseille.	Bouches-du-Rhone, Basses-Alpes, Var, Vaucluse.
.	Montpellier.	Hérault, Ardèche, Aveyron, Gard, Lozère, Tarn.
.	Toulouse.	Haute-Garonne, Ariège, Aude, Gers, Hautes-Pyrénées, Pyrénées-Orientales, Tarn-et-Garonne.
.	Bordeaux.	Gironde, Landes, Basses-Pyrénées.
.	Nantes.	Loire-Inférieure, Charente-Inférieure, Deux-Sèvres, Vendée, Vienne.
.	Rennes.	Ille-et-Vilaine, Côtes-du-Nord, Finisterre, Morbihan.
.	Caen.	Calvados, Manche, Orne.
.	Rouen.	Seine-Inférieure, Eure, Somme.
.	Lille.	Nord, Pas-de-Calais.
.	Ajaccio.	Corsica.
.	Dijon.	Côte-d'Or, Aube, Haute-Marne, Saône-et-Loire, Yonne.
.	Lyons.	Rhône, Cantal, Loire, Haute-Loire, Puy-de-Dôme.
.	Perigueux.	Dordogne, Charente, Corrèze, Lot, Lot et Garonne.
.	Bourges.	Cher, Allier, Creuse, Indre, Nièvre, Haute-Vienne.

There are many fortresses, citadels, forts, and other military posts, and six military arsenals in the country.

The principal military schools are those of artillery and engineers Metz, the practical military and polytechnic schools (l'Ecole lytechnique) at Paris, the schools of St. Cyr and La Flèche, and a cavalry school of Saumur.

At the same date the navy comprised 24 ships of the line, 40 frigates, 36 corvettes, 48 brigs, 78 transports and boats, in all 226 sailing vessels; and 91 steamers, comprising 14 frigates, 24 corvettes, and 53 smaller vessels.

The five naval ports of France are, Cherbourg, Brest, L'Orient, Rochefort, Toulon.

Colonies.—The colonies and foreign dependencies of France are:—
In Asia.—Pondicherry and Karikal, on the Coromandel coast, Mahé, on the coast of Malabar, Yanaon, in Orissa, and Chandernagore, in Bengal. The Marquesas and Tahiti in the *Pacific Ocean*.

In Africa.—Algeria, Senegal, and Goree, on the W. coast, and the islands of Bourbon and St. Marie in the Indian Ocean; certain portions of Madagascar, and the islands Mayotta and Nossi-Bé, and also Assinie, in Guinea.

In America.—The islands of Martinique, Guadeloupe, Marie-Galante, Desirade, Saintes, a part of St. Martin (in the Antilles), French Guiana and Cayenne, St. Pierre and Miquelon (near Newfoundland).

NATIONAL DIVISIONS.—France is divided into 86 *departments*, one of which consists of the Island of Corsica. Their names are mostly taken from that of the prominent natural feature which they contain; in the majority of instances, from those of the rivers by which they are intersected.

The departments are subdivided into *arrondissements*, *cantons*, and *communes*, or *parishes*.

THE EIGHT NORTHERN DEPARTMENTS ARE :

Departments.	Towns.
Nord	<i>Lille.</i>
Pas de Calais	<i>Arras, Boulogne, Calais.</i>
Somme	<i>Amiens.</i>
Aisne	<i>Laon, St. Quentin.</i>
Ardennes	<i>Mézières.</i>
Meuse	<i>Bar-le-Duc.</i>
Marne	<i>Châlons.</i>
Oise	<i>Beauvais.</i>

ELEVEN NORTH-WESTERN DEPARTMENTS.

Departments.	Towns.
ne Inférieure . . .	<i>Rouen, Havre, Dieppe.</i>
re	<i>Evreux.</i>
vados	<i>Caen, Bayeux.</i>
nche	<i>Cherbourg.</i>
re	<i>Alençon.</i>
enne	<i>Laval.</i>
et Vilaine . . .	<i>Rennes, St. Malo.</i>
es du Nord . . .	<i>St. Brieux.</i>
isterre	<i>Quimper, Brest.</i>
rbihan	<i>Vannes, L'Orient.</i>
re Inférieure . .	<i>Nantes.</i>

SIX SOUTH-WESTERN DEPARTMENTS.

ndée	<i>Napoleon-Vendée, Fontenay.</i>
rente	<i>Angoulême.</i>
rente Inférieure .	<i>La Rochelle, Rochefort.</i>
onde	<i>Bordeaux.</i>
ides	<i>Mont de Marsan, St. Sever.</i>
es Pyrénées . . .	<i>Pau, Bayonne.</i>

TEN EASTERN DEPARTMENTS.

selle	<i>Metz.</i>
urthe	<i>Nancy.</i>
te Marne	<i>Chaumont.</i>
ges	<i>Epinal.</i>
Rhin	<i>Strasbourg.</i>
at Rhin	<i>Colmar.</i>
te Saône	<i>Vesoul.</i>
bs	<i>Besançon.</i>
. . . .	<i>Lons-le-Saulnier.</i>
. . . .	<i>Bourg.</i>

SEVEN SOUTH-EASTERN DEPARTMENTS.

Departments.	Towns.
Isère	<i>Grenoble.</i>
Drôme	<i>Valence.</i>
Hautes Alpes	<i>Gap.</i>
Basses Alpes	<i>Digne.</i>
Var	<i>Draguignan, Toulon.</i>
Vaucluse	<i>Avignon.</i>
Bouches du Rhone	<i>Marseille, Aix.</i>

FIFTEEN SOUTHERN DEPARTMENTS.

Ardèche	<i>Privas.</i>
Gard	<i>Nismes.</i>
Herault	<i>Montpellier, Cette.</i>
Aude	<i>Carcassone.</i>
Pyrénées Orientales	<i>Perpignan.</i>
Ariège	<i>Foix.</i>
Hautes Pyrénées	<i>Tarbes.</i>
Gers	<i>Auch.</i>
Lot et Garonne	<i>Agen.</i>
Lot	<i>Cahors.</i>
Tarn et Garonne	<i>Montauban.</i>
Haute Garonne	<i>Toulouse.</i>
Tarn	<i>Alby.</i>
Aveyron	<i>Rhodes.</i>
Lozère	<i>Mende.</i>

TWENTY-EIGHT CENTRAL DEPARTMENTS.

Seine	<i>PARIS.</i>
Seine et Oise	<i>Versailles.</i>
Seine et Marne	<i>Melun.</i>
Aube	<i>Troyes.</i>
Yonne	<i>Auxerre.</i>

Departments.	Towns.
e d'Or . . .	<i>Dijon.</i>
vre . . .	<i>Nevers.</i>
ret . . .	<i>Orleans.</i>
re et Loire . . .	<i>Chartres.</i>
the . . .	<i>Le Mans.</i>
re et Cher . . .	<i>Blois.</i>
re et Loire . . .	<i>Tours.</i>
ine et Loire . . .	<i>Angers.</i>
ix Sèvres . . .	<i>Niort.</i>
nne . . .	<i>Poitiers.</i>
re . . .	<i>Chateauroux.</i>
er . . .	<i>Bourges.</i>
ier . . .	<i>Moulins.</i>
ne et Loire . . .	<i>Mâcon.</i>
one . . .	<i>Lyon.</i>
re . . .	<i>Montbrison, St. Etienne.</i>
ate Loire . . .	<i>Le Puy.</i>
use . . .	<i>Gueret.</i>
ate Vienne . . .	<i>Limoges.</i>
-dogne . . .	<i>Perigueux.</i>
rèze . . .	<i>Tulle.</i>
ital . . .	<i>Aurillac.</i>
sica . . .	<i>Ajaccio, Bastia.</i>

BELGIUM.

Extent and Boundaries.—Belgium is bounded on the *N.* *Holland*, on the *E.* by *Prussian Germany*, on the *S.* by *France*, and on the *W.* by the *North Sea*. Its greatest extent from *E.* to *W.* is about 160 miles, and from *N.* to *S.* but 115 miles. Its area is 11,313 square miles (rather than a fifth part of that of England and Wales).

Surface, Rivers, &c.—The surface of Belgium is formerly flat or slightly undulating in the *N.* and *W.* : coasts are low, and protected against the encroach-

ments of the sea by dykes and sand downs, as in Holland, though no part of Flanders is below the sea-level. The centre is undulating, and the S. and E. provinces are mountainous, being traversed by the Ardennes mountains, which enclose the valley of the Meuse, and separate its basin from that of the Moselle, rising to an elevation of 2000 feet. The whole territory belongs to the basin of the German Ocean, and is among the best watered countries of Europe: the chief rivers are the Meuse (Maas) with its tributaries, and the Scheldt. The climate is humid and cool; unhealthy in the low parts of Flanders; and in the province of Antwerp, Belgium is, in proportion to its extent, the most populous country in Europe, the number of its inhabitants amounting (in 1849) to 4,359,000.

The people of Belgium belong to three principal races; the Germanic, which comprehends the Flemings and Germans; the Gallic, to which belong the Walloons; and the Semitic, which comprehends only the Jews. The French language is used in public affairs, and by all the educated and wealthy classes. The Walloons speak a dialect of the ancient French.

The kingdom has *four universities*, the seats of which are Ghent, Liège, Louvain, and Brussels (which latter also has a *military school*).

Industrial pursuits: Agriculture.—The soil is in general fertile, especially so in Flanders, but sandy and sterile in great part of the provinces of Antwerp and Luxembourg. The country is estimated to yield double the quantity of corn required for home consumption. Wheat, barley, rye, oats, and buckwheat, are extensively grown.

Manufactures.—Manufacturing industry is the chief source of prosperity in Belgium; in this it surpasses every country in Europe, except England. The principal are those of *linen, woollen goods, lace, cotton, silk, fire-arms* (at Liège), &c.

Internal Communication.—The *roads* in Belgium are generally good and regular in direction. The principal *canals* are those which connect the Meuse and the Scheldt, and the latter river with the sea at Ostend. Belgium is the

only country in Europe which possesses a complete system of railways. These were executed by the government, and centre in *Mechlin* (Malines), whence they diverge N. to Antwerp, E. to Liège and the Prussian frontier, W. to Ostend (by Ghent and Bruges), and S. by Brussels, Mons, and other places to the borders of France.

The government of Belgium is a limited hereditary monarchy: the senate and the representatives are both elected by the people. The population is almost wholly Roman Catholic; but the clergy of all sects (including Jews), are supported by the state. Belgium has 22 fortified places: the principal fortresses are, Namur, Tournay, and Charleroi, with the citadels of Antwerp, Ghent, and Liège, and the ports of Ostend and Nieuport. The armed force in 1847 amounted to 180,000 men, of whom 90,000 belonged to troops of the line, and 90,000 to the civic or burgher guard. Her navy is small, but has been lately increased.

NATIONAL DIVISIONS.—Belgium is divided into the following nine provinces (commencing at the shores of the North Sea and proceeding eastwards):—

Provinces.	Towns.
West Flanders . . .	<i>Bruges.</i>
East Flanders . . .	<i>Ghent.</i>
Antwerp	<i>Antwerp, Mechlin.</i>
South Brabant . . .	<i>BRUSSELS, Louvain.</i>
Hainault	<i>Mons, Tournay.</i>
Limbours (part of) . .	<i>Hasselt.</i>
Liège	<i>Liège.</i>
Namur	<i>Namur, Dinant.</i>
Luxembourg (part of)	<i>Arlon.</i>

HOLLAND, OR THE NETHERLANDS.

Extent and Boundaries.—Holland, or the Kingdom of the Netherlands, is bounded on the N. and W. by the North Sea, on the E. by Hanover and Rhenish Prussia, and on the S. by Belgium. Its length from N.E. to S.W.

is about 200 miles ; its average breadth about 65 miles ; area (including parts of Limburg and Luxembourg) 13,598 square miles.

Surface, &c.—Forming the western extremity of the great plain of N. Europe, the territory of Holland is perfectly flat, with the exception of a few low hills which traverse the provinces of Gelderland, Overysse, and Utrecht : a considerable portion of it is formed of alluvium, or rescued by human industry from the sea, below the level of which much of it is situated.

From the point of the Helder to the Hoek van Holland, at the mouth of the Maas (78 miles), the coast is partly protected by natural downs, about 40 feet in height, composed of fine sand thrown up by the sea, and fixed by plantations of sea-grass. On the other parts of the coast, especially in Zeeland, Friesland, and Gelderland, the sea is confined by enormous artificial mounds, or *dykes*.

Rivers, Lakes, &c.—The principal rivers are the Rhine, Maas, and Scheldt.

On entering the Netherlands, the Rhine separates into two branches, the southernmost of which flows west 45 miles, and joins the Maas near Gorcum ; whilst the other, called the Rhine, flows N.W. 6 miles, where it again divides ; the New Yessel, on the right, flowing N. 65 miles to the Zuyder Zee, and the other branch flowing W. 30 miles. Here the Rhine again separates, the main stream called the Leck, after a course of 35 miles, joins the Maas, 7 miles E. of Rotterdam, while a branch on the right flows N.W. to Utrecht. Here the Rhine splits for the fourth time, the right branch, called the Vecht, flowing N. to the Zuyder Zee, the left, called the Old Rhine, flowing W. 35 miles to Katwryck, on the German Ocean.

The Meuse and the Scheldt each divide near their mouths into two main streams, all of which are connected together by other channels, the whole forming an extensive delta, in which are a great number of islands. The principal of these are Walcheren, N. and S. Beveland, Schouwen, Tholen, Goeree, and Overflakke. The chief

lakes, or *meers*, are those of Haarlem (now drained) and the γ marshes are numerous, and some of them, as the Bourtange and Peel morasses in the E., are very extensive.

Climate, Natural Productions, &c.—Holland is colder than the opposite coasts of England in similar latitudes, and the winters are generally very severe. The canal from Amsterdam to the Helder is frequently frozen for three months in the year, and the Zuyder Zee is frequently frozen over. The atmosphere is humid, especially in the western provinces. W. and N. winds are violent, and cause inundations by accumulating the waters of the sea upon the coasts, or by repelling that of the rivers. The great amount of stagnant water, would render the country uninhabitable but for the strong winds which purify the atmosphere.

Holland has no minerals, except a little bog iron, but immense deposits of turf and potter's clay. No stone of any size is to be found in the soil; and though, generally speaking, not a wooded country, large trees of oak, elm, beech, &c. are by no means rare.

Inhabitants.—The Kingdom of the Netherlands had (in 1849) 3,206,804 inhabitants.

The people are chiefly Hollanders, or *Dutch*, who belong to the German stock, with some Flemings, Germans, and *Frison*s (the native race of Friesland). The Dutch are proverbially cleanly, industrious, and frugal. The greater number of the inhabitants are Protestants, and hold the Calvinistic doctrines. Their form of church government is Presbyterian. The ministers of all sects, however, are paid by the government. There are three universities, those of Leyden, Groningen, and Utrecht.

Industrial Pursuits.—Holland is rather a grazing than an agricultural country, the quantity of corn raised being insufficient for home consumption. It is not distinguished as a manufacturing country, but the principal manufactures are those of woollen cloths,

silks, velvets, linen, and cotton goods. The principal trading ports are Amsterdam, Rotterdam, Middleburgh, Flushing, Briel, Dort, Enkhuizen, and Zieriksee. The internal trade is carried on entirely by means of *canals*, running through the streets of the towns, and spreading over the whole country. There are also some railways from Amsterdam W. to Haarlem, and S. to Leyden, the Hague, and Rotterdam, and running in a south-easterly direction by Utrecht and Arnhem towards the German frontier.

The *Government* of Holland is a limited hereditary monarchy. The *Military Force* amounts, at present, to about 43,000 men; but in time of war it may be readily raised to 70,000. The principal fortresses, next to Luxembourg, are Maestricht, Breda, Bergen-op-Zoom, Bois-le-Duc, Flushing, and the Helder. The navy consists of 8 ships of the line, 21 frigates, 15 corvettes, 21 brigs, and 95 gun-boats.

Colonies.—The colonial possessions of Holland are :—

In Asia.—Java, parts of Sumatra, Borneo, and Celebes, Moluccas and other islands in the East Indian Archipelago.

In America.—Surinam, Curacao, and dependencies.

In Africa.—Some ports on the Guinea coast.

NATIONAL DIVISIONS.—Holland is divided into 10 provinces, besides the portions of Limburg and Luxembourg belonging to the Dutch crown.

Provinces.	Towns.
North Holland . . .	AMSTERDAM, Haarlem.
South Holland . . .	Rotterdam, the Hague.
Zealand . . .	Middleburgh, Flushing.
North Brabant . . .	Bois-le-Duc, Breda.
Utrecht . . .	Utrecht.
Guelderland . . .	Arnhem.
Overysse . . .	Zwoll, Deventer.
Dreuthe . . .	Assen.
Friesland . . .	Lewwarden.

Provinces.	Towns.
Groningen . . .	<i>Groningen.</i>
Limburg . . .	<i>Maestricht.</i>
Luxembourg . . .	<i>Luxembourg.</i>

THE COUNTRIES OF CENTRAL EUROPE.

I. GERMANY.

Germany embraces a large portion of central Europe, extending in a N. and S. direction from the shores of the Baltic Sea to the head of the Adriatic, and is bounded *N.* by the *German Ocean, Denmark, and the Baltic*; *E.* by *Prussian Posen, Poland, Galicia, Hungary, and Croatia*; *S.* by *Istria, the Adriatic, Italy, and Switzerland*; *W.* by *France, Belgium, and the Netherlands*. Its greatest extent in latitude is about 600 miles, and its extreme length 678 miles. Its total area is 244,370 square miles.

The country comprised within the above limits does not form one government, but is parcelled out among numerous states. The principal of these are the kingdom of Prussia, which embraces a large portion, and the empire of Austria, to which belongs a still larger extent; besides which are several other states, of various magnitudes, and amounting in all to 38 in number. Both the empire of Austria and the kingdom of Prussia, besides the German provinces belonging to each, comprehend also other countries, whose inhabitants differ in race, language, and habits from the people of Germany.

The territories of which the German confederation was composed in 1850:—

States.	Area.	Population.	Chief Town.	Contingent of Men to the Army of the Confederation.
Austrian Empire . . .	76,014	11,893,100	<i>Vienna.</i>	94,822
Kingdom of Prussia . .	71,459	12,249,100	<i>Berlin.</i>	79,484
— Bavaria . .	29,601	4,504,800	<i>Munich.</i>	35,600
— Saxony . .	5,771	1,836,400	<i>Dresden.</i>	12,000
— Hanover . .	14,833	1,758,800	<i>Hanover.</i>	13,054
— Wirtemberg	7,651	1,743,800	<i>Stuttgart.</i>	13,955
Grand Duchy of Baden	5,913	1,349,900	<i>Carlsruhe.</i>	10,000

States.	Area.	Population.	Chief Town.	Con of the of ti fede
8. Electorate of Hesse . .	4,435	732,000	<i>Cassel.</i>	
9. Hesse Darmstadt . . .	3,758	852,600	<i>Darmstadt.</i>	
10. Duchy of Holstein . .	3,726	526,800	<i>Altona.</i>	
11. Grand Duchy of Luxem- bourg and Limburg . .	1,841	389,300	{ <i>Luxembourg.</i> <i>Limburg.</i> }	
12. Duchy of Brunswick . .	1,530	268,900	<i>Brunswick.</i>	
13. Grand Duchy of Meck- lenburg Schwerin . .	4,840	528,100	<i>Schwerin.</i>	
14. Duchy of Nassau . . .	1,749	418,600	<i>Wiesbaden.</i>	
15. Grand Duchy of Saxe- Weimar	1,418	257,300	<i>Weimar.</i>	
16. Duchy of Saxe-Coburg Gotha	798	147,100	<i>Gotha, Coburg.</i>	
17. ——— Saxe-Meiningen	970	160,500	<i>Meiningen.</i>	
18. ——— Saxe-Altenburg	510	129,500	<i>Altenburg.</i>	
19. Grand Duchy of Meck- lenburg Strelitz . . .	766	96,200	<i>Strelitz.</i>	
20. ——— Olden- burg and Kniphausen	2,419	278,900	<i>Oldenburg.</i>	
21. Duchy of Anhalt Dessau	361	63,000	<i>Dessau.</i>	
22. ——— Bernburg . .	301	48,800	<i>Bernburg.</i>	
23. Köthen	318	43,100	<i>Köthen.</i>	
24. Principality of Schwartz- berg Sondershausen . .	327	58,600	<i>Sondershausen.</i>	
25. ——— Rudolstadt . .	331	68,800	<i>Rudolstadt.</i>	
26. ——— Hohenzollern Hechingen	117	20,100	<i>Hechingen.</i>	
27. ——— Lichtenstein	53	16,300	<i>Lichtenstein.</i>	
28. ——— Hohenzollern- Sigmaringen	335	45,400	<i>Sigmaringen.</i>	
29. ——— Waldeck . .	461	58,700	<i>Corbach.</i>	
30. ——— Reuss (elder branch)	144	33,800	<i>Greitz.</i>	
31. ——— Reuss (younger branch)	448	77,200	<i>Schleitz.</i>	
32. ——— Schaumburg- Lippe	207	28,800	<i>Bückeburg.</i>	
33. ——— Lippe Det- mold	437	108,200	<i>Detmold.</i>	
34. Landgraviate of Hesse Homburg	106	24,300	<i>Homburg.</i>	
35. Free city of Lübeck . .	127	47,100		
36. ——— Frankfort . .	38	68,200		
37. ——— Bremen . .	106	72,800		
38. ——— Hamburg . .	151	188,000		
Total . .	244,370	41,196,500		306

PRUSSIA.

Boundaries and Extent.—Prussia is bounded on the *N.* by the *Baltic Sea, Denmark, and Hanover*; on the *W.* by *Holland and Belgium*; on the *S.* by *France*, various small *German States, Saxony*, and the *Austrian Empire*; and on the *E.* by the *Kingdom of Poland*. The extreme distance from *E.* to *W.* is 715 miles; the greatest extent from *N.* to *S.* is about 350 miles. The total area of Prussia is 107,958 English square miles, of which about two-thirds are in Germany. The shape of Prussia is very irregular, and a considerable part of its territory, extending on both banks of the Rhine (which separates it into two nearly equal parts), is entirely detached from the rest of the kingdom.

Surface, Rivers, &c.—The surface of Prussia is generally flat, except in the *W.* (province of Saxony), where it is traversed by parts of the Harz mountains, and in the *S.*, between Silesia and Bohemia, by the Riesen Gebirge, or Giant Mountains. The central, northern, and eastern portions belong to the region of the great plain. The eastern provinces belong to the basin of the Baltic, in which the chief rivers are the Memel or Niemen, the Pregel, Vistula, and Oder, with its affluent the Warta. The western provinces belong to the basin of the North Sea, and are watered by the Elbe, and its affluents the Saale, Havel, and Spree, the Weser, Ems, and Rhine, and its affluents the Moselle and Lippe. The coast of the Baltic abounds with large bays, or rather lagoons (called *Haffs*), the principal of which are the Curische-Haff, at the mouth of the Niemen, the Frische-Haff, at the mouths of the Vistula and Pregel, and the Stettiner-Haff, at the mouth of the Oder. The eastern provinces are remarkable for the great number of lakes they contain; of these, Lake Spirding has an area of 20 square miles, and Lake

Mauer is nearly as large. The islands of Prussia are Rügen, Usedom, and Wollin, in the Baltic.

Climate, Productions, &c.—The climate of Prussia, generally temperate and salubrious, is humid and cold in the N., but in Rhenish Prussia it is warm enough for the production of excellent wine. The soil is fertile in many places, and excellent grain is produced in sufficient quantity for the dense population, and is even exported to a considerable extent.

Inhabitants.—The population of the Kingdom of Prussia amounted, in 1849, to 16,285,000. The people of Prussia belong mostly to the great German and Sclavonian families; the Poles in Posen, W. Prussia, &c. belonging to the latter, and the great bulk of the inhabitants in other districts to the former. German is the language of the court, and of all the better informed classes in all parts of the kingdom.

Industrial Pursuits, Agriculture, Manufactures, &c.—Agriculture forms the chief source of national wealth; the principal crops are wheat, rye, oats, barley, flax, hemp, hops, and tobacco. The vine is cultivated in Rhenish Prussia, and to a small extent in detached districts of central and E. Prussia. *Amber* (a government monopoly) is a peculiar production of Prussia, and is found on the shores of the Baltic. The manufactures of Prussia are very extensive; the chief branches are linens, woollen cloths, and cottons, silk stuffs, iron founding, carriage building, &c. The porcelain of Saxony, called Dresden china, is much esteemed. The foreign trade of Prussia is checked by the limited extent of her sea-coast; and the greater part of it is carried on by ships belonging to other nations, of which the British are most numerous. The internal trade of Prussia has been greatly developed by the formation of a commercial league (called the *Zollverein*) with the other German states, the object of which is to

provide for freedom of transit for all goods through the different states of which Germany is composed.

Internal Communication.—All the great roads in the kingdom meet in Berlin : its position on a navigable river, communicating by canals with the Elbe, Oder, and Vistula, renders its navigation of considerable importance ; and it is now the centre of a system of railways which branch out in five different directions, and connect it with the Baltic by Hamburg and Kiel, on the N. W., and by Stettin on the N.E. On the S.E. a line extends by Breslau to Vienna, on the S. to Leipzig and Dresden, and on the W. to Magdeburg and Hanover. The aggregate length of railways opened in Prussia in 1850, was estimated at 1800 miles. The principal sea-ports of Prussia are Danzig, Königsberg, Elbing, Memel, Stettin, Stralsund, Kolberg, and Swinemünde.

Government, Religion, &c.—The government of Prussia is an hereditary monarchy, almost absolute in power. Both the legislative and executive powers are vested in the king. The prevailing religion is the Protestant, in various forms, to which about three-fifths of the inhabitants of Prussia belong ; the remaining two-fifths are chiefly Roman Catholics, but there are also numerous Jews. Prussia has seven universities, Berlin, Breslau, Bonn, Halle, Königsberg, Munster, and Greifswald. Prussia is essentially a military nation, and maintains an army of nearly 122,000 men, but she has no ships of war, nor any foreign colonies.

NATIONAL DIVISIONS. — Prussia consists of 8 provinces, which are divided into 25 governments ; of the provinces, Westphalia and the Rhenish province constitute the *western* and detached portion of the kingdom : Prussian Saxony, Brandenburg, Pomerania, and Silesia, form the *central* and larger part of its territory : Posen and *Prussia Proper* lie beyond the limits of Germany, and extend along its eastern borders.

IN GERMANY.

Provinces.	Towns.
Rhenish Prussia . . .	Cologne, Aachen (Aix-la-Chapelle).
Westphalia . . .	Munster.

Provinces.	Towns.
Saxony . . .	Magdeburg, Halle.
Brandenburg . . .	BERLIN, Potsdam, Frankfurt-on-the-Oder.
Pomerania . . .	Stettin, Stralsund.
Silesia . . .	Breslau, Liegnitz.

BEYOND THE LIMITS OF GERMANY.

Posen . . .	Posen.
Prussia Proper . . .	Königsberg, Danzig.

THE AUSTRIAN EMPIRE.

Boundaries and Extent.—The empire of Austria is situated in central and southern Europe; and, with the exception of a narrow strip at its southern extremity, projecting along the coast of the Adriatic, its territory forms a compact mass. Its length, from Lake Maggiore, in Italy, to the frontier of Transylvania, is about 860 miles, and its breadth (exclusive of Dalmatia) from the S. frontier of Croatia to the most N. point of Bohemia, about 492 miles. The total area is estimated at 255,640 square miles. On the S., Austria is bounded by *Turkey*, the *Adriatic Sea*, and the *independent states of Italy*; W. by the states of the *Kingdom of Sardinia*, *Switzerland*, and *Bavaria*; N. by *Prussia* and *Russian Poland*; and E. by *Russia* and *Moldavia*.

Surface, Rivers, &c.—Three great mountain systems cover the empire with their ramifications; the Alps in the S.W., the Bohemian and Moravian mountains in the N.W., the other at Orsova, in the S.E. Austria contains many extensive plains, remarkable for their uniform level; the principal of these are the plains of Lower Austria, on both sides of the Danube, the plains of Hungary, the plains of Slavonia, and that of the Po. Austria is most abundantly supplied with water, nearly all of which is collected into six great rivers, namely, the Danube and the Dniester flowing into the Black Sea; the Po and the Adige to the Adriatic; the Vistula to the

Baltic, and the Elbe to the German Ocean. The Alpine region is the most rainy country in Europe. Earthquakes occur in Dalmatia, Illyria, Hungary, and Transylvania. The climate is generally healthy, except in some of the low and marshy tracts in the south of Hungary.

Inhabitants.—The population of the Austrian Empire amounts to 36,000,000. The population belongs to four principal families, the German, Sclavonian, Italian, and Hungarian, or Magyars. German is the language of the countries inhabited by the first-named family, and the idiom employed by the superior administration; the different Sclavonian dialects by the second; Italian, and a mixed dialect by the third; and the Magyar by the fourth. French is the diplomatic language of Austria.

Industrial Pursuits: Agriculture, Commerce, &c.—Agriculture is in many parts of the empire in a very backward state, and it is computed that the country could support at least double the amount of its present population. In Styria, Illyria, and the Tyrol, the rearing of cattle constitutes the chief branch of agricultural industry, and the produce of wine is abundant. Lombardy and Venice raise a great amount of wheat, maize, and rice. The rearing of silk-worms is also a chief source of wealth. Moravia and Silesia are well cultivated, and Hungary yields abundance of grain. Mining is one of the chief branches of industry in the empire. Since the peace, manufacturing industry has made great progress in Austria. The most important articles produced are woollens, linens, cotton, silks, steel, and wood and glass wares; but, on the whole, Austria is not celebrated as a manufacturing state. The principal commercial port of Austria is Trieste, on the Adriatic. Venice is the seat of the admiralty, and has dock-yards and naval arsenals, and Fiume is the chief trading port for the Hungarian provinces.

Internal Communication.—The navigable rivers are the chief means of carrying on the internal trade of Austria. Steam-packets are established on the Danube and its tributaries, and on many of the smaller rivers, and on the lakes both on the N. and S. sides of the Alps. The principal lines of *railways* in operation and progress are as follows: 1. from Vienna S. to Grätz; 2. Grätz to Cilly; 3. Cilly to Trieste; 4. Vienna N.W. and N. to Olmütz, Prague, and Brünn; 5. from Vienna E. to Brück. In N. Italy the great trunk line from Milan E. to Venice, and from Milan N. to Monza. In Hungary, the principal lines are, 1. from Pesth E. to Szolnock (or from the Danube to the Theiss); 2. from Pesth N. to Waitzen, and N.W. to Presburg, and thence N.E. to Tyrnau.

Government.—The Austrian monarchy is composed of states which recognize the same sovereign, but are governed by different laws; it takes the first rank in the German confederation. The crown is hereditary by order of primogeniture in the male, and failing it in the female line. The government was a monarchy, nearly absolute; but since the revolution of 1848, a representative assembly of the different states has been formed; and Transylvania has been wholly incorporated with Hungary. Nearly each province has distinct usages and peculiarities of government. The prevalent religion is the Roman Catholic, which is professed by nearly three-fourths of the population. Next to it in numbers is the Greek church. Protestants are found chiefly in Hungary and Transylvania. There are nine universities, having their seats at Vienna, Prague, Padua, Pavia, Pesth, Lemberg, Grätz, Innsbruck, and Olmütz.

Army and Navy.—The military force of the empire is composed of a standing army, and an army of reserve (*landwehr*). The permanent force in time of peace is 414,000 men, and during war 639,650.

Austria possesses a great many fortifications, of which Josephstadt, Theresienstadt, Olmütz, Mantua, Peschiera, Comorn, and Venice are the most important. Vienna has a military school.

The navy consists of 8 vessels in ordinary, 3 frigates, 2 corvettes, 3 brigs, 3 schooners, and 46 smaller vessels, mounting in all 510 guns.

NATIONAL DIVISIONS:—

Provinces.	Towns.
Lower Austria . . .	VIENNA.
Upper Austria . . .	Linz.
Styria	Grätz.
Carinthia and } . . .	{ Klagenfurt.
Carniola } . . .	{ Laybach.

Provinces.		Towns.
Illyrian Coast	. . .	<i>Trieste.</i>
Tyrol . . . .	. . .	<i>Innsbruck.</i>
Bohemia. . . .	. . .	<i>Prague.</i>
Moravia . . . .	. . .	<i>Brunn.</i>
Silesia . . . .	. . .	<i>Troppau.</i>
Galicia . . . .	. . .	<i>Lemberg, Cracow.</i>
Dalmatia . . . .	. . .	<i>Zara.</i>
Lombardy and	} . . .	{ <i>Milan.</i>
Venice		
Hungary . . . .	. . .	<i>Pesth (with Buda).</i>
Transylvania . . . .	. . .	<i>Klausenburg.</i>
Sclavonia . . . .	. . .	<i>Eszeck.</i>
Croatia . . . .	. . .	<i>Agram.</i>
Military Frontier.		

THE SMALLER GERMAN STATES.

The remaining States of Germany, after Austria and Prussia, have been already enumerated in the table at the beginning of this section; but it is necessary to describe them more particularly with respect to their geographical position, &c.

Position, Extent, Surface, &c. :—

BAVARIA is composed of two distinct territories; the eastward and larger of which is situated between lat. $47^{\circ} 20'$, and $50^{\circ} 41'$ N., and long. 9° and $13^{\circ} 48'$ E., and bounded N. by Hessen-Cassel, Saxe-Meiningen, and Coburg Gotha, the principality of Reuss, and the kingdom of Saxony; E. by Bohemia and Austria; S. by the Tyrol; and W. by Würtemberg, Baden, and Hessen-Darmstadt. The westernmost, forming Rhenish Bavaria, is situated on the W. of the Rhine, and is bounded N. by Rhenish Prussia and Hessen-Darmstadt; E. by Baden, from which it is

separated by the Rhine ; S. by France ; W. by Rhenish Prussia and Hessen-Homburg.

WÜRTEMBERG, situated in the S.W. of Germany, is bounded E. by Bavaria, S. by the Lake of Constance, S.W., W., and N. by Baden. Its length is 140 miles, while its breadth varies from 20 to 100.

BADEN is situated to the W. of Würtemberg, and occupies the angle formed by the Rhine on turning northward from Basle. Its surface is mountainous, being covered for four-fifths of its extent by the range of the Schwarzwald.

SAXONY, in the middle of Germany, is bounded E. and S. by Austria, W. and N. by Bavaria, Saxe-Weimar, Saxe-Altenburg, and Prussia. Extreme length, 133 miles ; greatest breadth, 56. Its surface is mountainous, being traversed on the S. and S.E. by the Erzgebirge and Riesengebirge mountains.

HANOVER is situated in the N.W. part of Germany, on the German Ocean, and is bounded on the S. by the Prussian dominions, on the E. by Prussia and the Elbe, and on the W. by Holland. Inclosed in its territory are the grand duchy of Oldenburg, the free town of Bremen, and part of Brunswick.

MECKLENBURG lies to the N. and W. of the Prussian dominions, between the provinces of Brandenburg and Pomerania, the Baltic Sea, and the Elbe. It forms two distinct states, Mecklenburg-Schwerin and Mecklenburg-Strelitz ; the latter is the smaller and more eastern part of the territory.

To the west of Mecklenburg are *Holstein* and *Lauenburg*, which extend between the Baltic and North Seas.

For the position of the various smaller states the reader is referred to the Map.

The climate and natural productions of the smaller states, with

their inhabitants, industrial pursuits, &c., resemble those of Austria and Prussia already described.

NATIONAL DIVISIONS, TOWNS, &c. :—

States.	Towns.
Bavaria . . .	<i>Munich; Augsburg.</i>
Württemberg . .	<i>Stuttgart, Ulm.</i>
Baden . . .	<i>Carlsruhe, Mannheim.</i>
Saxony . . .	<i>Dresden, Leipzig.</i>
Hanover . . .	<i>Hanover.</i>
Mecklenburg-Schwerin	<i>Schwerin.</i>
————— Strelitz	<i>Neu-Strelitz.</i>
Hessen-Cassel .	<i>Cassel.</i>
Hessen-Darmstadt	<i>Darmstadt.</i>
Hessen-Homburg .	<i>Homburg.</i>
Oldenburg . .	<i>Oldenburg.</i>
Nassau . . .	<i>Wiesbaden.</i>
Brunswick . .	<i>Brunswick.</i>
Saxe-Weimar . .	<i>Weimar.</i>
Saxe-Meiningen .	<i>Meiningen.</i>
Saxe-Altenburg .	<i>Altenburg.</i>
Saxe-Coburg Gotha	<i>Gotha, Coburg.</i>
Anhalt (3) . .	<i>Dessau, Bernburg, Köthen.</i>
Schwartzburg (2) .	<i>Sondershausen, Rudolstadt.</i>
Hohenzollern . .	<i>Hechingen, Sigmaringen.</i>
Lippe . . .	<i>Detmold, Bückeburg.</i>
Reuss . . .	<i>Greitz, Schleitz.</i>
Waldeck . . .	<i>Corbach.</i>
Lichtenstein . .	<i>Lichtenstein.</i>
Holstein . . .	<i>Altona, Kiel.</i>

The German universities are twenty-three in number, of which those of Berlin, Heidelberg, Leipzig, Rostock, Marburg, Jena, Giessen, Kiel, Halle, Gottingen, Erlangen, and Griefswald, are Protestant ; Prague, Vienna, Grätz, Olmutz, Innsbruck, Würzburg, Munich, and Freiburg, are Roman Catholic ; and Bonn, Tübingen, and Breslau, of mixed character. The great number of public

libraries in the German towns forms a characteristic feature in the intellectual condition of the country.

SWITZERLAND.

SWITZERLAND is an inland country, bounded on the *N.* and *E.* by *Germany*, on the *S.* by *Italy*, and on the *W.* by *France*. Its greatest length from *E.* to *W.* is 216 miles, extreme breadth 140 miles, area 15,233 square miles; that is, about one-fourth of the size of England and Wales.

Surface, Rivers, &c.—Switzerland belongs to the region of the Central Alps, extending between Mont Blanc in Savoy, and the Gross Glockner in the Tyrol. The immense mass of Mont St. Gothard forms the centre of a system of mountains covered with perpetual snow and glaciers, the peaks of which are from 9000 to 14,000 feet above the level of the sea. The Alps cover all the central, southern, and south-eastern portion of the country, and occupy more than one-half of its superficies. The Jura mountains extend along the *N. W.* borders, the highest points being the Dôle and Mont Tendre, and between these is an undulating plain or tableland, 135 miles in length. The high Alps form vast reservoirs, whence issue thousands of fertilizing torrents. The chief rivers flow by the Rhine to the North Sea, by the Rhone to the Mediterranean, by the Ticino to the Po and the Adriatic, and by the Inn to the Danube and Black Sea. The other principal rivers are the Thur and the Aar, affluents of the Rhine, and the Emmen and the Limmat, affluents of the Aar.

Climate, Productions, &c.—The climate of Switzerland, owing to its elevation and other causes, is much more severe than might have been expected from its position,—nearly in mid-distance between the Equator and the North Pole. It presents the greatest extremes, and the most violent contrasts. On the table land and in the lower mountains snow falls in greater abundance than in any other countries of the same latitude in Europe. On St. Gothard snows falls at least once a month in summer. In the upper

valleys of the Jura, winter lasts six months ; it is longer in those of the Alps. Vegetation corresponds with the extremes of climate. In the Valais, the fig and grape ripen at the foot of ice-clad mountains. The corn raised in Switzerland is not nearly sufficient for the supply of its population. Flax and hemp are extensively grown ; and in general agriculture is making considerable progress.

Inhabitants.—The principal races inhabiting Switzerland are the Teutonic and the Celtic. The German language is spoken in a variety of *patois* in the N. and E. French is spoken in the Jura, and is the language of the people at large in the cantons of the W. and S., but S. of the Alps Italian is the language of the Swiss. The population of Switzerland amounts to 2,391,700. Of these 974,100, inhabiting the regions of the Alps, are Roman Catholics, whilst the inhabitants of the Jura and the table land are Protestants, amounting in all to 1,417,600.

Industrial Pursuits, Manufactures, &c.—The great wealth of Switzerland consists in its rich and excellent pastures, which in summer support vast numbers of cattle. The cultivation of the vine is an important branch of industry in the S.W. cantons. Cheese is a valuable product : that called Gruyère is extensively exported.

Switzerland has made rapid progress in manufacturing industry. The E. and N.E. cantons manufacture cotton goods. Silks are woven in Zurich and Basle, and linens at Berne. Watches, jewellery, and musical boxes are the principal manufactures of the W. cantons.

Government, &c.—The federal assembly is composed of two divisions, a national council and a senate, meeting at Berne ; but each canton has its own code of laws. The confederation has no standing army, but every Swiss is a soldier, and each canton contributes a fixed contingent when called upon. The armed force consists of about 64,000 men, viz. 51,800 infantry, 5800 artillery, 5700 cavalry, and 700 engineers. Every two years a federal camp is formed for exercise ; and at Thun, in the canton of Berne, a school for the instruction of officers is held for two months in each year.

There are three universities, those of Basle, Berne, and Zurich.

NATIONAL DIVISIONS.—Switzerland embraces 22 cantons :

Cantons.	Towns.
Zurich	<i>Zurich.</i>
Berne	<i>BERNE.</i>
Lucerne	<i>Lucerne.</i>
Zug	<i>Zug.</i>
Schwitz	<i>Schwitz.</i>
Unterwalden	<i>Stanz.</i>
Uri	<i>Altdorf.</i>
Glarus	<i>Glarus.</i>
St. Gall	<i>St. Gallen.</i>
Appenzell	<i>Appenzell.</i>
Thurgau	<i>Frauenfeld.</i>
Schaffhausen	<i>Schaffhausen.</i>
Aargau	<i>Aarau.</i>
Basle	<i>Basle.</i>
Soleure	<i>Soleure.</i>
Neuchâtel	<i>Neuchâtel.</i>
Friburg	<i>Friburg.</i>
Vaud	<i>Lausanne.</i>
Geneva	<i>Geneva.</i>
Valais	<i>Sion.</i>
Ticino	<i>Bellinzona.</i>
Grisons	<i>Chur or Coire.</i>

THE COUNTRIES OF NORTHERN AND EASTERN EUROPE.

I. DENMARK.

Extent and Boundaries.—The kingdom of Denmark bounded on the *N.* by the *Skager-Rack*, on the *W.* by the *North Sea*, on the *S.* by *Germany*, and on the *E.* by the

Baltic Sea and the *Cattegat*. Its greatest length from N. to S. is 300 miles, greatest breadth 180 miles ; total area 21,856 square miles.

Surface, Rivers, &c.—Denmark is composed of three distinct parts :—I. the islands in the Baltic and Atlantic ; II. the peninsula of Jutland ; and III. its dependencies, the duchies of Schleswig, Holstein, and Lauenburg. The coasts are generally indented, and the country is perfectly flat ; in the N., some parts of it are below the level of the sea, from the invasions of which it is defended by dykes. On the E., the surface rises into gentle elevations. Holstein and Lauenburg are the best watered districts. Among the islands, only Zealand and Fünen have rivers, the others being watered by mere brooks. Extensive marshes exist in all the valleys of the peninsula and in the islands. Next to the Elbe, which forms the S. boundary of the kingdom for 80 miles, the Eider is the largest and most important river.

Climate, Natural Productions, &c.—The climate is humid and cloudy, but, notwithstanding its northern position, it is, from the lowness of its level and the influence of the surrounding seas, much milder than the countries of Germany situated further south. The soil is almost entirely alluvial, and well adapted for cultivation. Agriculture has been greatly improved of late years, and corn is raised more than necessary for home consumption. Cattle are extensively reared in N. Jutland and the Duchies. Horses of an excellent breed, and valuable for military purposes, are reared on a large scale, and exported to the average number of 11,000 per annum. Denmark has scarcely any mineral productions, and consequently no manufactures of any importance.

Inhabitants.—The population of Denmark amounted in 1845 to 2,239,000. These all belong to the Teutonic or German family of nations, and speak the Danish and

German languages ; the first in the islands and Jutland, the latter in the greater part of Sleswick, and in Holstein and Lauenburg.

Internal Communication.—Except in Zealand, the roads are generally bad. But railways have been constructed from Altona to Kiel (with a branch to Glückstadt) ; from Neumünster to Rendsburg ; from Hamburg to Berlin ; and from Copenhagen to Roeskilde. There are many extensive canals, the chief of which are the Schleswig-Holstein canal, which with the Eider river forms a communication between the Baltic and the German Ocean, and the Stecknitz canal in Lauenburg.

Commerce.—The commerce of Denmark has greatly increased since the peace in 1815 ; the chief exports are agricultural products, horses, oxen, beer, and brandy. The principal ports are Copenhagen, Altona, Kiel, Flensburg, and Aalborg.

Government, Religion, &c.—The Danish government is (with the exception of the duchy of Lauenburg) an absolute monarchy, but since 1834 it is restricted by a national representation. The duchies of Schleswig and Holstein revolted from Denmark in 1848. As Duke of Holstein and Lauenburg, the king was a member of the German Confederation, and had three votes in the full council of the diet. By the constitution of 1834, the kingdom is divided into four political provinces, represented by four provincial states, the members of which are elected for six years. The state religion is Lutheran, and the king is the head of the Church ; other sects are tolerated. There are two universities,—those of Copenhagen and Kiel.

Army and Navy.—The regular military force consists of about 25,000 men, but there is a large militia, or *landwehr*, that is occasionally called out to exercise ; the peasantry are all, with few exceptions, liable to compulsory service in the army for six years. Copenhagen has a polytechnic school, a royal school of marine, and

a royal school for the higher military sciences. The navy consisted, in 1850, of 6 ships of the line, of which 5 carried 84 guns, 7 frigates, 5 corvettes, 4 brigs, &c.

Colonies.—The colonial possessions of Denmark consist of the islands of Farøe and Iceland, and part of the coast of Greenland, and the tropical possessions, viz. the Danish W. India Islands, St. Croix, St. Thomas, and St. John, with a number of smaller islands; the establishments on the coast of Guinea, viz. Christiansborg, Fredensborg, Kongensteen, Prindsenstein, and Augustenborg; Tranquebar on the Coromandel coast.

NATIONAL DIVISIONS:—

Provinces.	Towns.
Island of Zealand . . .	COPENHAGEN, Elsinore.
————— Funen . . .	Odensee.
Jutland	Aalborg, Aarhus.
Schleswig	Schleswig.
Holstein	Glückstadt, Altona, Kiel.
Lauenburg	Lauenburg, Ratzeburg.

II. SWEDEN AND NORWAY.

Boundaries, Extent, &c.—Sweden and Norway occupy the N.W. portion of the European continent. They are bounded on the *N.* and *W.* by the *Arctic* and *Atlantic* oceans; on the *S.* by the channels of the *Skager-Rack* and *Cattegat*, and the *Baltic Sea*; on the *E.* by the *Baltic*, the *Gulf of Bothnia*, and *Russian Lapland*. Sweden occupies the *E.*, and Norway the *W.* portion of the peninsula. The total area of the peninsula is 292,000 square miles, of which Sweden contains 170,000, and Norway 122,000.

Surface, Rivers, Lakes, &c.—The peninsula of Norway and Sweden is a continuous mountain mass, traversed by valleys. These mountains, the Scandinavian Alps, cover more than half the surface of Norway, and extend from

N. to S. under the names of Kiöling, Dovre-Field or Dofrines, Land-Field, and Hardanger-Field. The W. and N. parts of the peninsula form a continuous plateau, descending abruptly towards the W.; while on the other side the mountains slope gently to the S.E. The eastern parts of Sweden are comparatively level, and the most southern province is a low plain, belonging to the region of the great European lowland. Rivers and lakes are numerous both in Sweden and Norway, but, owing to the falls and rapids, few of them are navigable to any distance inland. The principal rivers are the Glommen in Norway, and the Göta in Sweden.

Climate, Productions, &c.—The Scandinavian peninsula, from its vicinity to the sea, has a remarkably mild climate, considering its northern position. The sea never freezes, even at North Cape; but the shallow water of the Skager-Rack is occasionally frozen in winter. The year is nearly equally divided between winter and summer; spring is almost unknown; snow covers the ground from the beginning of November till the end of March. The natural wealth of the Scandinavian peninsula consists in its mines, its forests, and its fisheries. Forests cover a large proportion of the surface of both Sweden and Norway. The seas, rivers, and lakes swarm with fish. The timber of the Scotch and spruce firs is exported in large quantities.

Inhabitants.—The population of Sweden amounted, in 1846, to 3,316,500, that of Norway to 1,328,400. Norway and Sweden, owing to the great extent of their mountains and barren moorlands, are the most thinly inhabited countries in Europe, and the population is scattered in small villages, often at a great distance from the towns. The people of Sweden and Norway speak different dialects of a language which is radically the same.

Industrial Pursuits.—In Sweden and Norway, agri-

culture is necessarily limited by the peculiar features of their formation and climate. The principal grain of Norway is barley, but the corn raised is insufficient for home consumption. The raising of cattle is the chief occupation of the inhabitants of the mountainous districts. In Sweden the corn produced is adequate to the consumption. The manufactures are not important, and are chiefly confined to articles for domestic use. Ship-building is extensively carried on at the ports on the Baltic and Atlantic shores.

Internal Communication.—The roads are rough and bad, and there are no public coaches. Steam-boats are established on the principal lakes and the navigable portions of the rivers. There are no railways in Sweden and Norway, nor any canals in Norway. But the Gotha canal, in Sweden, forms a navigable communication between the river Gotha and the Baltic Sea, passing through the great lakes of Wener and Wetter, and thereby avoiding the channel of the Sound.

Government, Religion, &c.—The government is a monarchy, hereditary in the male line, with a representative diet, in Sweden. The diet consists of four separate chambers, consisting respectively of deputies from the nobility, clergy, burghers, and peasants or cultivators. In Norway the democratic assembly is called the *Storting*, and consists of from 75 to 100 members, one-third of whom are returned by the towns, and the rest by the rural districts. The executive power in both countries is vested in the sovereign, but the laws and institutions of Norway differ materially from those of Sweden, and are of a freer and more popular character. The established religion, both in Sweden and Norway, is the Lutheran; but much ceremony has been retained in the forms of worship. There are no dissenters, and although all sects of Christians are tolerated, Jews are excluded from settling in Norway. In Sweden there are about 2000 Roman Catholics, and under

1000 Jews. All sects are tolerated, but Lutherans only can be advanced to any employment under the state. Sweden has two universities, those of Upsal and Lund, and special schools for the military and naval services. In Norway the university of Christiania was founded in 1811.

Army and Navy.—The army of *Norway* consists of about 10,000 infantry, 1000 cavalry, 1000 artillerymen, and 150 engineers, in all 12,150 men. The naval force consists of 5 brigs, and 117 gun-boats.

The *Swedish* army consists of 26,700 infantry, 8000 cavalry, 5140 artillery, in all 39,840 men, besides a militia of 95,000 men. Navy, 21 ships of the line, 8 frigates, 8 brigs, and 250 small vessels.

NATIONAL DIVISIONS.—*Sweden* forms 3 great divisions, those of Sweden Proper in the centre, Gothland in the S., and Nordland in the N. These are divided into 24 governments, or *läns*.

Divisions.	Towns.
Sweden Proper . . .	STOCKHOLM, Upsal.
Gothland . . .	Gothenburg.
Nordland . . .	Hernösand, Umea.

Norway is divided into the 3 regions of Souden-fields, Nordenden-fields, and Nordlandens, or the southern, middle, and northern tracts.

Divisions.	Towns.
Soudenfields . . .	CHRISTIANIA.
Nordenfields . . .	Bergen, Christiansand.
Nordlandens . . .	Bodoe, Tromsøe.

III. RUSSIA.

Boundaries, Extent, &c.—Russia embraces all the eastern part of Europe, and stretches from N. to S. across

the entire breadth of the continent. It is bounded *E.* by *Siberia* and the *Caspian Sea*; *S.* by *Asiatic Russia*, the *Black Sea*, and the *Austrian* and *Ottoman Empires*; *W.* by *Moldavia*, *Austria*, *Prussia*, the *Baltic*, and *Sweden*; and *N.* by the *Arctic Ocean*. The surface of Russia may be considered as one vast plain, enclosed by the Ural mountains on the *E.*, the Caucasus on the *S.*, and partly by the Carpathians on the *W.*; it opens to the Caspian Sea on the *S.E.*, and the level countries of *N. Germany* on the *W.* Throughout its vast extent (2,120,397 square miles) it does not contain a single mountain. The Valdai hills in the centre have an average height of about 800 or 900 feet. Russia is traversed by the largest rivers in Europe. These form the great *N.* and *S.* basins, the watershed between which is not marked by mountains, but by slightly undulating ground. The *Baltic* receives the Tornea, Kemi, Ulea, Kumo, Neva, Narva, Duna, Niemen, and Vistula; the *Arctic Ocean* receives the Paswig, Kola, Petchora; and by the White Sea, the Vigo, Onega, Dwina, Mezén; the *Black Sea* receives the Danube, Dniester, Dnieper, Don, and Kuban; the *Caspian Sea* the Ural, Volga, Kuma, and Terek. Among the numerous islands belonging to the empire, the chief are the group of Novaia Zembla (new land), in the Arctic Ocean, the archipelago of Spitzbergen, which is claimed by Russia, Kalgouf, and Waigatz islands.

Climate, Natural Productions, &c.—From its vast extent, Russia has a great diversity of climate; the plains of the *N.*, exposed to the winds of the Arctic Ocean, are much colder than the other countries of Europe in corresponding latitudes. The whole of the *N. coast*, from lat. 66°, on the White Sea, *S.E.* to lat. 62° *N.* long. 59° *E.*, has a temperature below the freezing point, and the surface is constantly frozen. Between this frozen space, and lat. 58° *N.*, the mean temperature varies from 32° to 40°; at St. Petersburg, which is within this space, the thermometer, in December and January, sinks to 22° below zero, while in summer it rises to 85° or 90°. *S.* of lat. 58°,

the mean temperature is between 40° and 55° : the winters are short and severe, the summers long and hot.

Russia produces all the plants common to the best countries of Europe. Corn is raised more than necessary for consumption, and is extensively exported, although agriculture is in its rudest state. Rye is the chief crop. The forests, which are the most distinguishing feature in Russia, yield valuable produce, and building timber, tar, pitch, and potash are widely exported. Black cattle and sheep are extensively reared ; the horses of the S. and central provinces are large ; those of the Cossack tribes are capable of enduring great fatigue. Camels are kept in large herds by the nomadic tribes in the steppes.

Inhabitants.—The population of Russia (including Finland and Poland) amounted in 1846 to 60,708,100. The Russian empire embraces an immense variety of different races ; but the great bulk of the nation, or the Russians properly so called, with the Poles, belong to the great Slavonic family. The next principal race is that of the Finns. There are also Tartars, Georgians, Armenians, Germans, Jews, Samoyedes, Mongolians, &c.

The people belonging to the Slavonic race have two languages, the Russian and the Polish. There are three principal dialects of the Russian language, the *Great Russian* (the purest and most cultivated), the *Malo-Russian*, and the *White Russian*.

Manufactures.—The government of Moscow is the centre of manufacturing industry. The staple manufactures are, woollens, silks, linens, cottons, metal wares, soap, and candles, besides which the manufactures of glass, paper, porcelain, damasked steel sword blades and daggers, arms, jewellery, and morocco leather, rival those of the best products of Europe.

Commerce.—Moscow is the centre of internal commerce ; and the chief seaports are St. Petersburg, with Kronstadt, Riga on the Baltic, Archangel on the White Sea, Astrakhan on the Caspian, and Odessa on the Black Sea. The prin-

principal exports are tallow, hides, hemp, lint, iron, copper, linseed, building timber, wax, potash, train oil, skins, furs, and morocco leather. The principal imports are wine, cotton, silk, fine woollens, dyeing materials, tea, sugar, coffee, and other colonial produce, and machinery.

Internal Communication.—The commerce of Russia is greatly facilitated by its numerous navigable rivers, and its vast and excellent system of canals, by means of which not only do the Baltic and the White Sea communicate with the Caspian and the Black Sea, but the great lakes and principal rivers are united into a complete system of inland navigation.

There are two great public companies, one instituted in 1823, for establishing steam-packets on the Volga, the Kama, and the Caspian Sea ; and the other, established in 1824, for the steam navigation of the great rivers of the interior, the Black Sea, and the Baltic. The only railway yet completed is that from Warsaw, by Czenstochau and Cracow, joining the Great Austrian and German lines at Kossel ; and the great line from St. Petersburg to Moscow (390 miles) is now in progress.

Government, Religion, &c. — In Russia all power emanates in the first instance from the Emperor, or *Czar*, who is head of the Church, and has absolute power, every thing being referred to him in the last instance.

The public business is transacted, under the Emperor, by different boards, councils, or colleges, which have each separate functions. (1) *The Imperial Council of the Emperor* consists of a president and an indefinite number of members, of which the ministers always make a part. It is divided into the five departments of legislation, war, civil and religious affairs, finance, and the affairs of Poland, and has the superintendence of all matters connected with the internal administration of the empire. (2) The second college, or *senate*, is reckoned the most important body in the state. It has various functions, partly of a deliberative, and partly of an executive character. It is the high court of justice for the empire, and con-

trols all the inferior tribunals. The members are nominated by the Emperor, and are divided into eight committees, of which five sit at St. Petersburg, and three at Moscow. (3) The third college consists of the *Holy Synod*, and to it is committed the superintendence of the religious affairs of the empire. It is composed of the principal dignitaries of the church. All its decisions run in the emperor's name, and have no force till approved by him. (4) The fourth college consists of the *committees of ministers*, of whom there are eleven, viz. the ministers of the imperial household, of war, finance, justice, interior, public instruction, imperial domains, post-office, roads, and public buildings, and the vice-chancellor and comptroller-general. The local administration differs in different provinces ; conquered or annexed countries preserve their own laws and institutions, so far as they are not opposed to the general constitution of the empire. The nobility possess nearly all the land of the country.

The established religion of the empire is that of the Greek church, which is estimated to comprise 47,000,000 of the population, the remainder being Roman Catholics, Lutherans, Reformed Churchmen, Moravians, Moham-medans, Buddhists, &c., or nine-tenths professing Christians, and one-tenth heathens.

The hierarchy is composed of bishops, archbishops, and metropolitans. There are in all 38 dioceses, and 254,000 clergy of all ranks and orders ; 500 cathedrals, and about 29,000 churches. No country in Europe possesses such a number of fine churches as Russia ; the meanest village is generally furnished with a church ornamented with gilt domes and spires, and containing at least four or five bells.

The universities are those of St. Petersburg, Moscow, Kharkof, Kasan, Dorpat, Kieff, Helsingfors, and Odessa. There are military schools in St. Petersburg and Moscow, and in most of the provinces, and regimental schools.

There are at St. Petersburg schools for pages, engineers, officers of artillery, sub-officers of the guard, &c. ; the rank of ensign being given to cadets who have been two years in the service ; but the principal establishment for the education of officers is that of the

Corps des Cadets, at St. Petersburg, founded in 1731. It has about 700 pupils, the sons of noble parents, that is, of those who have attained to the rank of captain in the civil or military service. The pupils, on leaving the school, become ensigns in regiments of the line. This school has materially contributed to diffuse information among the inferior nobility, and to supply the army with able officers.

Army and Navy.—The effective force of the Russian army may be reckoned at 600,000 men. But exclusive of these, the troops not of the line, or those forming the irregular army, constitute a very formidable force. They consist, 1st, of 50,000 men in garrison in different parts of the interior, and along the frontier; 2nd, of above 100,000 veterans, mostly employed for the same purpose; and 3rd, of the irregular Cossack cavalry, and the colonized regiments.

Navy.—Russia has a very considerable naval force, the fleet comprising about 50 ships of the line, 25 frigates, 10 steam ships, and about 600 smaller vessels.

NATIONAL DIVISIONS.—European Russia is divided into 49 governments and 12 provinces, besides the country of the Don Cossacks, a kind of military republic, the grand duchy of Finland, the kingdom of Poland, and several duchies of the Caucasus, Siberia, &c.; some of which are actually, and others only nominally, dependent on Russia.

I. BALTIC PROVINCES.

Provinces.	Towns.
St. Petersburg . . .	ST. PETERSBURG, Kronstadt.
Esthonia . . .	<i>Revel.</i>
Livonia . . .	<i>Riga, Dorpat.</i>
Courland . . .	<i>Mittau, Libau.</i>
Viborg . . .	<i>Viborg.</i>
Finland . . .	<i>Helsingfors, Abo.</i>

II. GREAT RUSSIA.

Provinces.			Towns.
Archangel	.	.	<i>Archangel, Onega.</i>
Olonetz	.	.	<i>Olonetz, Petrozavodsk.</i>
Volodga	.	.	<i>Volodga.</i>
Kostroma	.	.	<i>Kostroma.</i>
Jaroslav	.	.	<i>Jaroslav.</i>
Novgorod	.	.	<i>Novgorod.</i>
Pskov	.	.	<i>Pskov.</i>
Tver	.	.	<i>Tver.</i>
Smolensk	.	.	<i>Smolensk.</i>
Moscow	.	.	<i>Moscow.</i>
Vladimir	.	.	<i>Vladimir.</i>
Nigni Novgorod	.	.	<i>Nigni Novgorod.</i>
Tambov	.	.	<i>Tambov.</i>
Riazan	.	.	<i>Riazan.</i>
Tula	.	.	<i>Tula.</i>
Kaluga	.	.	<i>Kaluga.</i>
Orel	.	.	<i>Orel.</i>
Koursk	.	.	<i>Koursk.</i>
Voronetz	.	.	<i>Voronetz.</i>

III. WEST RUSSIA.

Wilna	.	.	<i>Wilna.</i>
Vitebsk	.	.	<i>Vitebsk, Polotsk.</i>
Moghilev	.	.	<i>Moghilev.</i>
Minsk	.	.	<i>Minsk.</i>
Grodno	.	.	<i>Grodno.</i>
Bialystock	.	.	<i>Bialystock.</i>
Volhynia	.	.	<i>Jitomir, Berditchev.</i>
Podolia	.	.	<i>Kaminietz.</i>
Poland	.	.	<i>WARSAW, Kalisch.</i>

IV. SOUTHERN RUSSIA.

Tchernigov	.	.	<i>Tchernigov.</i>
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Provinces.	Towns.
Kiev	<i>Kiev.</i>
Kherson	<i>Kherson, Odessa.</i>
Bessarabia	<i>Kishenau.</i>
Taurida	<i>Simferopol, Sevastopol, Caffa.</i>
Ekaterinoslav	<i>Ekaterinoslav.</i>
Poltava	<i>Poltava.</i>
Kharkov	<i>Kharkov.</i>
Country of the Don Cos- sacks	<i>Tcherkask.</i>

V. EAST RUSSIA.

Perm	<i>Perm.</i>
Viatka	<i>Viatka.</i>
Kasan	<i>Kasan.</i>
Simbirsk	<i>Simbirsk.</i>
Penza	<i>Penza.</i>
Orenburg	<i>Oufa, Orenburg.</i>
Saratov	<i>Saratov.</i>
Astrakhan	<i>Astrakhan.</i>

Cis-Caucasia,

{ Caucasus	<i>Stavropol.</i>
{ Circassia.	
{ Daghestan	<i>Derbend.</i>

THE COUNTRIES OF SOUTHERN EUROPE.

I. TURKEY, OR THE OTTOMAN EMPIRE.

Boundaries and Extent.—Turkey embraces a large territory in the S. of Europe, including part of the most easterly of its three peninsulas, and a considerable portion of the adjoining mainland, extending between lat. 39° and 48° 20' N., and lon. 15° 40' and 29° 30' E. It is bounded on the *E.* by the *Black Sea*; *S.* by *Greece*, the *Archipelago*, and the *Sea of Marmora*; *W.* by *Austria*, the

Adriatic, and the *Ionian Sea*; and *N.* by *Austria* and *Russia*. Its area is about 210,000 square miles.

Surface, Rivers, &c.—Most of the surface is an undulating region of hills and valleys, mountains and tablelands, of little elevation; but it is traversed in the centre from E. to W. by the extensive mountain chain of the *Balkan*, which extends from the plain of *Sophia* (lon. 23° E.) to *Cape Emineh* on the *Black Sea*, forming a series of peaks of little elevation, the highest of which are covered with grass and fruit trees. The W. part of the *Great Balkan* runs S.S.E. to N.N.W. and separates *Bulgaria* from *Upper Mœsia*, on the N., whilst on the S. it serves to connect the *Hæmus* with *Mount Rhodope*. The E. part of the *Balkan* consists of a series of minor chains decreasing in elevation as they approach the plains of the *Danube* on the N., and the *Black Sea* on the E. The *Emineh Dag*h is 2660 feet in elevation. The *Balkan* is connected with the mountains of *Middle Europe* by the ranges of *Montenegro*, *Herzegovina*, and the *Dinaric Alps* on the W., and the mountains of *Greece* on the S.

Turkey is watered by numerous rivers, the chief of which are the *Danube*, and its affluents the *Dvina*, *Morava*, *Aluta*, *Sereth*, and *Pruth*, in the basin of the *Black Sea*; the *Maritza*, *Strymon*, *Vardar*, in the basin of the *Archipelago* in the S.; and the *Voyussa*, *Drin*, and *Narenta*, in the basin of the *Adriatic*, in the W. The largest lakes are those of *Ochrida* and *Scutari* in the W.

Climate, Natural Productions, &c.—The climate is more severe than might be supposed from the geographical position of the country; in the recesses of the highest mountains snow lies during the greater part of the year. It is excessively cold in winter during N.E. winds, which are then prevalent. A great portion of *Albania*, protected by elevated mountains from the N.E. winds, enjoys a delicious climate, but this district is liable to be

visited by destructive earthquakes. In the rocky districts of the interior, and in the maritime valleys of Albania, the summer is insupportably hot. A great portion of Turkey is covered with forests; the best oak grows in Servia and Lower Bosnia; the largest forests of fir and pine occur in Bosnia and Upper Croatia. The olive thrives in the maritime region of Albania, where also the orange and citron are cultivated. The vine grows in S. Turkey, Herzegovina, and Servia. Maize is cultivated in the S.; rice, cotton, rye, and barley in central Turkey. Agricultural operations are conducted in the rudest manner, and only a small portion of the country is cultivated. Goats are more abundant in Turkey than in any other country of Europe. Cattle are extensively reared in Wallachia, Servia, and Bosnia, and the buffalo is common in Wallachia, Bulgaria, and Thrace.

Manufactures are almost entirely domestic; the chief comprise saddles, copper and tin utensils, fire-arms, swords, coarse woollen cloths, linen and cotton spinning. Silks are manufactured chiefly at Salonika, Seres, and Larissa. Carpets are wrought by hand in Bulgaria and Servia.

Inhabitants.—The population of Turkey is estimated at from 14,000,000 to 15,000,000.

The Turks (or Osmanlee) are the ruling people, but constitute only a small fraction of the population, and are most numerous in Roumelia. The majority of the inhabitants belong to the Slavonic race, among which are the people of Bulgaria, Servia, Bosnia, Croatia, and Herzegovina. The Wallachians are a distinct race. The inhabitants of Albania are called Arnauts. Besides the above, are the modern Greeks, a people of mixed origin; the Armenians and Jews, who are very numerous in the towns.

Commerce.—The chief imports of Turkey are corn, and a great variety of manufactured articles and colonial produce. The exports consist principally of raw materials,

carpets, and shawls, from Asia Minor, perfumes and drugs from the more distant countries of the E. The trade carried on between Turkey and England is very considerable, and Constantinople serves as a sort of station through which the manufactures of Britain are supplied to the different provinces of the Turkish empire, and also to the various countries of Western Asia. Commerce is almost entirely in the hands of Greeks, Armenians, and Jews.

Internal Communication.—Very few of the roads in Turkey are practicable for carriages, and beasts of burden are employed both for the conveyance of passengers and goods. There are neither canals nor railways, but considerable traffic is carried on by means of the rivers, especially the Danube.

Government, &c.—The government of Turkey is a despotic monarchy, the whole power being vested in the sovereign, who is styled the *Sultan*, or *Grand Seignior*. The principal officer of state is styled the *Grand Vizier*, and the government of the different provinces of the empire is administered by *Pashas*. Several towns and small communities form a species of republics in the middle of the state.

The Turks are followers of the Mohammedan religion, but the majority of the people of European Turkey, including all the Slavonic population, are members of the Greek Church.

Army.—The Turkish land forces may comprise, exclusively of artillery, about 100,000 infantry,—of whom about 70,000 are regulars,—and about 100,000 cavalry.

NATIONAL DIVISIONS:—

Provinces.	Towns.
Roumelia . . .	CONSTANTINOPLE, Adrianople, Salonika, Philippopoli, Uskup, Gallipoli.

Provinces.	Towns.
Thessaly . . .	<i>Larissa</i> , Pharsala.
Albania and Epirus	<i>Scutari</i> , Janina.
Herzegovina .	<i>Mostar</i> .
Croatia . . .	<i>Banialuka</i> , Novi.
Bosnia . . .	<i>Bosna Serai</i> , Zvornik.
Servia . . .	<i>Belgrade</i> , Kragojevacz.
Bulgaria . . .	<i>Sophia</i> , Shumla, Varna, Rustchuk.
Wallachia . . .	<i>Bucharest</i> , Tergovist.
Moldavia . . .	<i>Jassy</i> , Galacz.

On the borders of Albania and Herzegovina is the small independent republic of Montenegro, which is under the protection of Russia, and has an area of about 450 square miles, with a population of 100,000, mostly belonging to the Greek Church. The Montenegrins are hardy, robust, and brave. The *Vladika* is the high-priest, civil governor, and commander-in-chief of the army. The capital is Cetigne.

The principal islands belonging to Turkey are Candia (Crete), chief town Candia, and Thaso, Samothraki, Imbro and Lemno, with several smaller islands, all situated in the northern part of the Archipelago.

II. GREECE.

Boundaries and Extent.—The kingdom of Greece lies to the S. of Turkey, and embraces the remainder of the eastward peninsula of southern Europe. It is bounded *N.* by *European Turkey*, from the *Gulf of Volo* to the *Gulf of Arta*; *W.* by the *Ionian Sea* and islands; *S.* by the *Mediterranean* and the island of *Crete*, and *E.* by the *Ægean Sea*. The total area (exclusive of the islands) is about 15,000 square miles.

Surface, Islands, &c.—Greece is naturally divided into three parts, 1. Hellas on the N., 2. the Morea on the S., and 3. numerous islands scattered over the Archipelago.

The territory of Greece is nearly all mountainous ; the culminating point of the whole is Mount Guiona, in Phocis, 8239 feet in elevation. The principal chain, that of Pindus, enters the country on the N., and Mount Othrys, one of its branches, forms the greater part of the N. boundary of Greece. S. of this, the principal chain turns S.E., and forms two branches, Œta on the N., and Parnassus on the S. Another chain extends from Cape Marathon, in the channel of the Egripos, W. to the Morea, which it enters by the Isthmus of Corinth. The centre of the Morea forms an elevated table-land, enclosed by three mountain chains, the most extensive of which crosses the peninsula on the N. The coasts are elevated, irregular, and deeply indented. Greece has numerous streams, but they are mostly rapid, and unfit for navigation. The only extensive lake is Topolais, in N. Greece.

Of the islands of Greece, the principal are Eubœa, Kuluri (*Salamis*), Egina, Hydra, and Spezzia, near the E. shores of the mainland ; and Andro, Tino, Mikoni, Syra, Zea, Thermia, Serfo, Sifanto, Milo, Paro, Naxo, Amorgo, and Santorin, in the more central part of the Archipelago.

Climate, Natural Productions, &c.—The climate of Greece is temperate and generally healthy, except in some parts of the coasts, and in the vicinity of the lakes ; violent storms occur in the spring and autumn. Minerals are rich and varied, but little worked ; marble and other building materials are abundant. Vegetable products vary according to the elevation of the soil. The olive, fig, currant-grape of Corinth, vine, melons, orange, date, citron, &c. are cultivated at an elevation of 1600 feet. Above 6000 feet in elevation, great part of the mountains are covered with pine forests. The principal domestic animals are sheep and goats ; bees are still extensively reared.

Inhabitants.—The population belong to the ancient Greek race in the W. of the continental portion and E. of Parnassus ; in the Morea the same race prevails, but here it is more mixed. The population of the islands is a mixture of Albanians and Greeks. The language of modern

Greece is called the *Romaic*, which bears a considerable resemblance to the ancient Greek tongue. The population amounted, in 1840, to 856,700, of which the majority belong to the Greek church.

Industrial Pursuits, Agriculture, &c.—A very small proportion of the land is under cultivation, but still corn is raised sufficient for the population, and is even exported. The most common crops are wheat, barley, maize, and rye. Manufactures, which are mostly domestic and very inconsiderable, comprise silks, chiefly in the island of Tinos, cottons, woollens, coarse pottery, leather, and beet-root sugar.

The principal resource of the inhabitants of Greece has always been in maritime commerce. The Greeks are the principal agents in the commerce of the eastern Mediterranean, and supply British and other manufactured goods to the nations around its shores. The principal ports are Athens (the Piræus), Patras, Nauplia, Syra, Kalamata, and Navarino. There are no good roads, except between Athens and its harbour.

Government, &c.—Greece was erected into a kingdom under Otho, second son of the King of Bavaria, in 1832. The government is a limited monarchy. The king exercises the power of the executive, and commands the army and navy. In 1845 the army consisted of 8919 men, of whom 210 were cavalry. The navy consisted of 26 gun corvettes, several steam-packets, and smaller vessels.

The chief educational establishments are, the University at Athens, five gymnasia at Athens, Syra, Nauplia, Patras, and Hydra, a normal, polytechnic, a military, and a naval school.

NATIONAL DIVISIONS.

Towns.

Northern Greece . ATHENS, Lepanto.

Towns.

Morea	<i>Nauplia</i> , Corinth, Tripolitza, Navarino, Patras.
The Islands . . .	<i>Syra</i> (Island of Syra), <i>Egripo</i> (Island of Eubœa or Negropont), <i>Hydra</i> (Island of Hydra).

THE IONIAN ISLANDS, situated to the W. and S. of Greece, form a separate state, under the protection of Great Britain; the government being vested in a lord high commissioner, appointed by Great Britain, and a parliament, consisting of a senate and legislative assembly. The seven principal islands are Corfu, Cephalonia, Zante, Santa Maura, Ithaca, Paxo, and Cerigo; with Fano, Merlera, Meganisi, Kalamo, Servi, Cerigotto, and many smaller islands. United area 1092 square miles, and population 219,700, nearly all of Greek descent. The chief productions of these islands are the olive, the vine, and the currant, all of which they export largely. Ship-building is an important branch of industry, and many of the population are occupied in maritime trade and navigation. The chief towns are *Corfu* (the seat of the university) and Zante. The established religion is that of the Greek Church. The armed force consists of about 3000 British troops. Marine, one frigate and one steam-packet (English), stationed at Corfu; and two steam-boats, bearing the Ionian flag, for communicating between the seven islands.

III. ITALY.

Boundaries and Extent.—Italy embraces the central of the three southern peninsulas of Europe. It is bounded *E.* by the *Adriatic* and the *Ionian Sea*; *S.* by the *Mediterranean*; *W.* by *France* and the *Mediterranean*; *N.* by *Switzerland*

and *Austria*. Its natural confines are the Alps and the sea, the W. boundary being determined by the river Varo, and the E. by a pass in the Alps, near Buccari, in the gulf of Quarnero.

The general direction of the Italian peninsula is S.E. and N.W. ; its length, from Mount St. Gothard to Cape Spartivento, is nearly 750 English miles ; its breadth varies from about 380 miles in N. Italy, to less than 80 miles near its centre ; and in one part of Calabria it is no more than 18 miles from sea to sea. The area of the mainland may be estimated at 100,000 square miles ; but three large islands lie off the coast of Italy, viz. Sicily, Sardinia, and Corsica, and many smaller, as Elba, Ischia, the Lipari group to the N. of Sicily, and Malta and Gozo to the S. of that island. Corsica belongs to France, and has been already described. Malta and Gozo belong to England.

Italy has long been divided into many independent states, of which the five principal are—the *Lombardo-Venetian territory*, which forms a part of the Austrian empire ; the *Kingdom of Sardinia* ; the *Grand-duchy of Tuscany* ; the *States of the Church*, or Papal dominions ; and the *Kingdom of Naples and Sicily*. The others, of smaller extent, are the *Duchy of Parma*, the *Duchy of Modena*, and the *Republic of San Marino*.

Surface, Rivers, &c.—Though bounded by the Alps, only a comparatively small portion of the surface of Italy is covered with Alpine ramifications. The mountain system exclusively belonging to the peninsula is that of the *Apennines*. These mountains, which may be regarded as a continuation of the Maritime Alps, at first run E. along the Mediterranean shores in the Sardinian territory ; and then, turning S., divide Tuscany from the Papal states, passing through the peninsula nearly in its centre, and sending off numerous branches on either side. At length, near lat. $40^{\circ} 45'$, the main ridge divides into two separate chains ; the principal of which continues S. to the extremity

of Calabria, while the other runs E.S.E. to the Terra d'Otranto. The Apennines are much less rugged than the Alps, and abound with rich forests and pasture land, on which numerous flocks of sheep are fed. They are of great service to the country, by the numerous rivers which have their sources in them, and by their influence in moderating the summer heats. Italy is famous for its volcanos; those of *Etna*, *Vesuvius*, and *Stromboli* (in the Lipari islands), being the best known of any on the globe. But though for the most part mountainous, Italy has some plains of great extent and extraordinary fertility. Of these, the most extensive and richest is that of Lombardy, or of the Po. It extends from the foot of the Cottian Alps, near Susa, to the mouth of the Po in the Adriatic, a distance of about 250 miles, with a breadth varying from 50 to 120 miles, including nearly the whole of the Lombardo-Venetian kingdom, the central portion of the Sardinian dominions, most part of the duchies of Parma and Modena, and the N. legations of the Papal states. It is extremely well-watered; the numerous rivers and streams that rise in the Alps, pour down into the plain, and afford a vast and inexhaustible supply of water; and from these an infinite number of canals have been cut, which diffuse the fertilizing element over the whole country. This plain has to boast of an immense number of cities. The next great plain stretches along the W. shore of Central Italy for about 200 miles, from Pisa in Tuscany to Terracina, between the Papal states and Naples. Within these limits are included the *Tuscan Maremma*, great part of the *Campagna* of Rome, and the *Pontine Marshes*. This plain is, in all respects, different from the former. Though formerly highly cultivated and populous, it is now comparatively a desert, in consequence of the prevalence of *malaria*. The third great plain is that of Capitanata (Apulia), having Foggia in its centre. It comprises the

greater portion of a tract of that country, extending from the border of Samnium to Otranto, along the shore of the Adriatic. The lower part of the plain is arid, the rivers decreasing both in size and frequency as we proceed further S. The upper portion of the plain is more plentifully supplied with water, but it, also, has in many parts a sandy and thirsty soil. The level district round Naples is rich, well cultivated, and densely peopled. Except the Po, the rivers are small and generally mere torrents; the chief of these are, in the basin of the Adriatic, the Tagliamento, Piave, Brenta, Po, Aterno, Sangro, and Ofanto; in the basin of the Ionian sea, the Bradano; and in that of the Mediterranean, the Arno, Ombrone, Tiber, Garigliano, and Volturno; the Rhone forms part of the frontier of Savoy. Italy has some of the largest mountain lakes in Europe; the chief are Geneva, Maggiore, Garda, and Lugano, portions of which only belong to the territory. Como and Iseo are entirely Italian.

Climate, Natural Productions, &c.—From its position, form, and configuration, Italy enjoys a varied and excellent climate, which permits the productions of the temperate, and some of those of the torrid zone to mingle on its surface. Snow lies during the year only on the Alps, at an elevation of 9500 feet; the valley of the Po has a temperate climate, its lakes and portions of the lagoons of Venice are frozen in winter; in the S. of Calabria, Sicily, and the neighbouring islands, the climate permits of the cultivation of tropical plants. The prevailing winds of Italy are W. and S.W., during which the air is pure and healthy; but the S. portion of the country is frequently visited by the pestilential winds of Africa, the *Sirocco* and *Libeccio*; during which vegetation is arrested, and the human frame becomes languid and feeble. Italy is rich in mineral products, but has few metals, except iron and lead. The Apennines supply the beautiful marble of Carrara.

Sulphur, borax, salt, nitre, alum, alabaster, lava, and other volcanic productions, are abundant.

Inhabitants.—The total population of Italy is reckoned at 23,471,800. Lombardy is the most populous district. The modern inhabitants of Italy are a mixed race, descended from the Greeks, Germans, Goths, and others. Throughout the whole of Italy, except Savoy and Corsica, *Italian*, in different dialects, is the language of the country.

Industrial Pursuits, Agriculture, &c.—The chief products of the soil are corn in Sicily and in the plain of the Po, which last also possess the only extensive rice-fields in Europe. The chesnut forms an important article of food in the Apennines. The vine, olive, and other fruit trees yield abundant crops; and in the S. the sugar-cane, orange, and fig are cultivated; the culture of the mulberry and the rearing of the silk-worm form an important branch of industry, and cotton is cultivated with success. Cattle are reared to a considerable extent in the N., and goats and swine in the S.

Manufactures and Commerce.—The manufactures, except in the N., are unimportant, and comprise silk, chiefly in Lombardy and Piedmont; the other manufactures are woollens, silk, gauze, porcelain, artificial flowers, hats, paper, parchment, and musical instruments. The principal imports are colonial produce, linen, woollen and cotton fabrics, jewellery, and dried fish. The chief exports are silk, wool, oil, honey, straw hats, and Parmesan cheese; but commerce has greatly declined.

The city of *Genoa* is the chief seat of foreign commerce in the Sardinian states; *Venice*, in the Austrian part of Italy; *Leghorn*, in Tuscany; *Civita-Vecchia* and *Ancona*, in the Papal states; and *Naples*, with *Palermo* and *Messina*, in the kingdom of Naples and Sicily.

Internal Communication.—The principal roads in Austrian Italy and Tuscany are good; but in the Papal states

and the Neapolitan dominions they are in general very bad. In Central Italy, several ancient roads exist, in good preservation. New and excellent roads have been opened from Genoa to Nice, Turin and Leghorn, and from Leghorn and Grossetto. The road from Rome to Naples is extremely good. Within the present century, magnificent roads have been carried over the Alps, by the passes of the Splügen, Simplon, St. Bernard, Mont Cenis, &c., and easy means of communication have thus been opened between Italy and Transalpine Europe. Canals are very numerous in Lombardy. In the Austrian part of Italy, a railway is in course of construction between Milan and Venice, with branches to other principal towns; and there are also some lines of railway in Piedmont, Tuscany, and the Neapolitan states.

Government.—There is nothing more than the shadow of popular representation in Italy. The little duchy of Lucca has, indeed, its senate of 36 representatives, and some bodies in the city of Genoa and the island of Sardinia slightly trench on the power of the king of those dominions. The Lombardo-Venetian kingdom has also its two provincial assemblies; and in the kingdom of Naples there are nominally two legislative chambers,—one of peers and the other of deputies. But the functions of the Sicilian chambers are obsolete; and the provincial assemblies of the Lombardo-Venetian kingdom are divested of all legislative powers. Elsewhere the governments of Italy are absolute (San Marino being little more than a dependency of the pope), especially the popedom and the duchy of Modena; though in the former it is generally exercised with extreme mildness.

NATIONAL DIVISIONS:—

I. AUSTRIAN ITALY.

The Austrian portion of Italy, called the *Lombardo-*

Venetian kingdom, is divided into the two governments of *Lombardy* and *Venice*; the former of which occupies the W., the latter the E. part of the territory. The *Ticino*, a tributary of the Po, separates *Lombardy* from the *Sardinian* territories.

Towns.

Lombardy . . .	MILAN, Brescia, Bergamo, Mantua, Cremona, Pavia.
Venice . . .	Venice, Padua, Verona.

II. THE KINGDOM OF SARDINIA.

The *Sardinian* states consist of *Piedmont*, which embraces the upper part of the valley of the Po, *Genoa*, and *Nice*, bordering on the Mediterranean, *Savoy*, situated beyond the Alps, and the *Island of Sardinia*.

Towns.

Piedmont . . .	TURIN, Alessandria, Asti.
Genoa . . .	Genoa.
Nice . . .	Nice.
Savoy . . .	Chambery.
Island of Sardinia .	Cagliari, Sassari.

III. GRAND DUCHY OF TUSCANY.

The principal towns in *Tuscany* are, *Florence*, *Leghorn*, *Pisa*, *Lucca*.

Government.—The government is an absolute monarchy, mildly exercised. The Grand Duke is assisted by a council of four ministers.

Army.—The military force consists of 6000 men, of whom only 4500 are usually under arms. The naval force is insignificant, there being only one ship of war to guard the port of *Leghorn*.

IV. THE STATES OF THE CHURCH.

The States of the Church are divided into 21 provinces, most of which are called legations and delegations. The total area is 17,495 square miles, and the population 2,898,100. The principal towns are—ROME, Bologna, Ancona, Ferrara, Perugia, Macerata, Benevento, Ravenna, Rimini, Viterbo, &c. *San Marino* is the capital of a republic, which has an area of about 21 square miles, and a population of about 7600.

The walls of Rome include a circuit of fifteen miles, but the inhabited part is of much smaller extent, and occupies the north-west part of the ancient city. The finest buildings are the churches, of which there are 364. Rome is the seat of one of the oldest universities in Europe, and possesses also several institutions for the cultivation of science and the fine arts.

Government.—The government is wholly ecclesiastical, no one being eligible to fill any civil office who has not attained the rank of abbot. The Pope enacts all laws, and nominates to all clerical appointments. He is assisted by the High College of Cardinals, comprising about 70 members; and the different branches of the government are conducted each by *congregations*, with a Cardinal at its head.

Army.—The army of the Papal states is under the direction of a cardinal president, and a board of three general officers, and consisted, in 1850, of a permanent force of 14,000 men, and a body of reserve and national guard, together amounting to 5000 men.

V. THE KINGDOM OF NAPLES AND SICILY, OR THE TWO SICILIES.

Towns.

Continental Naples	.	NAPLES, Foggia, Bari.
Island of Sicily	.	<i>Palermo</i> , Messina, Catania.

Government.—The government is a monarchy, hereditary in both the male and female line. The King is assisted by a cabinet of nine ministers, and a privy council composed principally of noblemen.

Army.—The military force, in 1848, amounted to 49,000 men, viz. 32,000 infantry, 5000 cavalry, 4000 artillery and engineers, and 8000 *gens-d'armes*.

VI. SMALLER STATES.

The duchies of Parma and Modena are situated to the S. of the Po, and lie between Lombardy on the N., the Papal and Sardinian states on the E. and W., and the chain of the Apennines on the S. Parma has an area of 2274 square miles, and a population of 496,800. The area of Modena is 2317 square miles; population 580,600.

Towns.

Parma	.	.	.	<i>Parma, Piacenza.</i>
Modena	.	.	.	<i>Modena, Reggio, Carrara.</i>

The islands of *Malta*, *Gozo*, and *Cumino*, situated 50 miles to the S. of Sicily, belong to Great Britain, and form a colony which though small in size, is of great importance as a maritime station for the protection of British commerce in the Mediterranean, and as one of the stages or resting places on the modern overland route to India. Malta has an area of 98 square miles, and a population of 103,200. The chief town is *Valetta*, on the N.E. coast, built upon a tongue of land which extends into a bay, and forms an excellent harbour on either side. The town and suburbs are surrounded by strong fortifications, part of which are cut out of the solid rock.

IV. SPAIN.

Boundaries, Extent, &c.—Spain occupies the eastern and larger portion of the S.W. peninsula of Europe. It is bounded on the N.E. by *France*, from which it is separated by the Pyrenees; N. by the *Bay of Biscay*; W. by *Portugal* and the *Atlantic*; and S. and E. by the

Straits of Gibraltar and the Mediterranean. Its greatest length from E. to W. is about 650 miles; its greatest breadth 550 miles; total area 182,758 square miles. The whole peninsula has a square and compact shape, and hence, although the length of coast-line is considerable, there are still large interior tracts which possess no maritime frontier, and are removed from the influence of oceanic climate and vegetation.

Surface, Rivers, &c. — The surface of the Iberian peninsula is more diversified than that of any country of equal extent in Europe. Its interior forms a vast elevated table-land, which in the plateau of Castile has a mean elevation of 2300 feet. This plateau occupies almost one-half of the superficies, and is nearly surrounded by mountains. Spain is traversed in a direction from E. to W. by five principal chains of mountains, called in Spanish *Sierras*. These are (from N. to S.), I. The *Pyrenees*, extending from Cape Creuz on the E. to the Bay of Biscay on the W.; and their W. continuation the *Asturian* and *Cantabrian* mountains. II. The chain which separates the basins of the Douro and Tagus, the *Sierras Guadarama, Gredos, and Gata*. III. The mountains of *Toledo, Sa. Guadalupe, and Sa. San Marnes*, between the Tagus and Guadiana. IV. The *Sa. Morena*, separating the basins of the *Guadiana* and *Guadalquivir*, and connected westward with the *Sa. de Monchique* in Portugal. V. *Sierra Nevada*, extending from Carthagen to Cadiz, and containing the *Cerro Mulhacen*, the highest point of the peninsula, 11,678 feet.

The principal rivers of Spain are, from N. to S., the *Ter, Llobregat, Ebro, Guadalaviar, Jucar, and Segura*, flowing E. to the Mediterranean. The *Minho, Douro, Tagus, Guadiana, and Guadalquivir*, flowing mostly through Portugal W. and S. to the Adriatic. The N. slope has only the *Nalon*, the *Bidassao*, and some moun-

tain streams. The only lakes or lagoons of Spain are the *Albufera* in Valencia, and the *Mar Menor*, in Murcia.

Inhabitants.—The population of Spain was estimated, in 1845, at 15,439,100. The present inhabitants are descendants of the ancient Iberians, or of other races who colonized it at different periods. Four principal families are discernible; I. the *Spaniards*, descendants of the original races, and of Greeks, Romans, Vandals, Goths, and Alans. II. The *Basques*. III. The *Moors*, descendants of the conquerors who ruled for seven centuries in the S. of the peninsula. IV. The *Gitanos*, or gipsies. The Spanish language is only spoken in purity in the provinces of Castile; it is a mixed tongue, the result of a combination of the Teutonic with the Latin. The inhabitants of Biscay and the adjacent provinces speak a totally different dialect, called the Euskarian or Basque.

Industrial Pursuits, Agriculture.—The soil is generally fertile, except in the elevated and arid districts of the central provinces; the chief crops are wheat, maize, barley, rice, hemp, and flax. The amount of corn, owing to the backward state of husbandry, is often insufficient for home consumption. The wines of Spain are much esteemed; the principal growths are those of Xeres (sherry), Rota, Malaga, &c.; the other products are soda, honey, wax, and silk, the latter very abundant in the S.E. provinces. In the S. provinces the sugar-cane and cotton have been acclimatized, and the orange and citron grow in great abundance. The horses of Andalusia are celebrated. The race of sheep, called the *merino*, yields a great quantity of excellent wool; their exportation has always been prohibited.

Manufactures.—The manufacturing industry of Spain, formerly flourishing, has greatly declined; the government has still manufactures of saltpetre, gunpowder, cannon, and

fire-arms, tobacco, porcelain, glass, but they are mostly in decay ; and the celebrated manufacture of swords at Toledo is nearly extinguished. The other manufactures are of silks, cottons, woollens, and leather. Cutlery, iron, and copper goods, are made chiefly in Biscay.

Commerce.—The principal *exports* are wool, wine, brandy, oil, fruits, iron, lead, mercury, and salt, with a small amount of silk and manufactured goods. *Imports*, colonial goods, dried fish, and salted provisions, butter, cheese, rice, cotton, and woollen goods, cutlery, glass, and building timber.

Internal Communication.—The public roads in Spain, except those around the capital, are among the worst in Europe ; wheel carriages are little used, and much of the transport is effected by means of mules. There are several canals, many of them on a magnificent scale, but mostly unfinished and unfit for navigation ; the chief of these are the Imperial canal, commenced by Charles V., extending along the right bank of the Ebro ; the canals of Castile, Manzanares, Murcia, Albacete, and Guadarama. The only railways are a short line between Barcelona and Mataro, a distance of 16 miles, and another between Madrid and Aranjuez, about 35 miles in length.

Religion and Government, &c.—The religion is exclusively Roman Catholic. Education is greatly neglected ; the lower orders are nearly destitute of any means of instruction, since the suppression of the monasteries. The cities of Madrid, Toledo, Valladolid, Seville, Salamanca, Granada, Valencia, Saragossa, Oviedo, and Santiago de Compostella, possess universities. The government is a limited monarchy, the legislative power being shared between the sovereign and an elective assembly called the *Cortes*.

Army and Navy.—The regular army amounts to about 60,000 men ; and there is besides an extensively organized militia, but the troops are badly disciplined, and badly appointed. The navy, once so formidable, now comprises only 2 sail of the line, 5 frigates, some smaller vessels, and a few steamers.

Colonial Possessions.—Spain possesses the islands of *Cuba*, *Puerto Rico*, and some smaller islands in America; the *Philippine* and *Marianne* islands in the Pacific, the *Canary* islands in the Atlantic, *Fernando Po*, and the island of *Annabon*, in the Gulf of Guinea, and *Ceuta*, *Gomera*, and *Melilla*, places used for the transportation of convicts, in Barbary.

NATIONAL DIVISIONS.—Spain is now divided into 49 provinces, the names of which are mostly taken from their respective capitals, as follow :—

New Provinces.	Old Provinces.	Towns.
Madrid	New Castile	MADRID.
Toledo		Toledo.
Ciudad Real		Ciudad Real.
Cuença		Cuença.
Guadalaxara		Guadalaxara.
Burgos	Old Castile	Burgos.
Logrono		Logrono.
Santander		Santander.
Avila		Avila.
Segovia		Segovia.
Soria		Soria.
Valladolid		Valladolid.
Palencia		Palencia.
Leon	Leon	Leon.
Salamanca		Salamanca.
Zamora		Zamora.
Badajos	Estremadura	Badajos.
Caceres		

New Provinces.	Old Provinces.	Towns.
Cordova	Andalusia	<i>Cordova.</i>
Jaen		<i>Jaen.</i>
Granada		<i>Granada.</i>
Almeria		<i>Almeria.</i>
Malaga		<i>Malaga.</i>
Seville		<i>Seville.</i>
Cadiz		<i>Cadiz.</i>
Huelvas		<i>Huelva.</i>
Murcia	Murcia	<i>Murcia.</i>
Albacete		<i>Albacete.</i>
Valencia	Valencia	<i>Valencia.</i>
Alicante		<i>Alicante.</i>
Castellon-de-la-Plana		<i>Castellon-de-la-Plana.</i>
Barcelona	Catalonia	<i>Barcelona.</i>
Tarragona		<i>Tarragona.</i>
Lerida		<i>Lerida.</i>
Gerona		<i>Gerona.</i>
Saragossa	Aragon	<i>Saragossa.</i>
Huesca		<i>Huesca.</i>
Teruel		<i>Teruel.</i>
	Navarre	<i>Pampeluna.</i>
Vittoria	Biscay	<i>Vittoria.</i>
Bilbao		<i>Bilbao.</i>
St. Sebastian	Guipuzcoa	<i>Tolosa.</i>
Asturias	Oviedo	<i>Oviedo.</i>
Corunna	Galicia	<i>Corunna, Santiago de Compostella.</i>
Lugo		<i>Lugo.</i>
Orense		<i>Orense.</i>
Pontevedra		<i>Pontevedra.</i>

New Provinces.	Old Provinces.	Towns.
Balearic Islands :—		
Majorca	}	<i>Palma.</i>
Minorca		<i>Mahon.</i>
Iviza		<i>Iviza.</i>
Formentera		
Cabrera		

Canary Islands :—		
Grand Canary	}	<i>Las Palmas.</i>
Teneriffe		<i>Santa Cruz.</i>
Fortaventura		
Lanzarote		
Palma		
Gomera		
Ferro		

Gibraltar, a strongly fortified seaport town and colony of Great Britain, occupies a mountainous promontory near the southern extremity of Spain. It is every where fortified by works of amazing strength and extent. Population (excluding the garrison) about 15,000. The harbour is good, and protected by two moles, one 1100, and the other 700 feet in length.

V. PORTUGAL.

Boundaries and Extent.—Portugal is bounded on the *N.* and *E.* by *Spain*, and on the *S.* and *W.* by the *Atlantic Ocean*. Its length from *N.* to *S.* is 368 miles, its breadth varies from 80 to 140. Its area is 35,268 square miles.

Surface, Rivers, &c.—The surface has a gradual slope from *N.E.* to *S.W.*, as indicated by the general courses of the rivers. Three of the mountain chains which cross the

Spanish peninsula have their western termination in Portugal, dividing the basins of the different rivers, and covering with their various offsets almost the entire surface of the country. The principal rivers are the *Minho*, *Douro*, *Mondego*, *Tagus*, and *Guadiana*.

Inhabitants.—The population of Portugal amounted, in 1841, to 3,412,500. The people are of the same lineage as the Spaniards, and speak a dialect which differs but little from the Spanish.

Industrial Pursuits, Agriculture.—The soil is naturally rich, but husbandry is conducted in the most slovenly manner, and the corn raised is insufficient for the consumption of the people. The cultivation of the vine is the most important branch of industry.

Manufactures.—The manufactures are very limited, and consist chiefly of arms, porcelain, woollens, cottons, jewellery and trinkets, glass, paper, silks.

Commerce.—The foreign commerce of Portugal (excepting that in the wine trade) is inconsiderable. The exports consist of *port* wine, lemons, oranges, figs, almonds, and other fruits; salt, olive-oil, sumach, wool, and cork. The imports are corn, dried fish, salt meat, butter, cheese; horses, mules, and other animals: besides manufactured goods of various kinds, with iron, steel, and other metals.

Religion and Government.—The government of Portugal is a constitutional monarchy; the religion of the state is Roman Catholic. Educational establishments are very defective, except in the capital, which contains extensive libraries, an observatory, and several literary and scientific institutions.

Army and Navy.—The army, in 1849, contained 28,100 men, of whom only 1800 were in active service; the navy, 2 ships of the line, 6 frigates, 8 corvettes, 11 gun brigs, 7 schooners, and 2 steamers.

Colonies.—The colonial possessions of the Portuguese are :—in Asia, the small territories of Goa, Damaun, and Macao, and settlements in the islands Solor, Timor, and Mindoro. In Africa, the capitancies of Angola and Congo in S. Guinea, Mozambique on the E. coast, some establishments in Senegambia, and the islands of Madeira, Cape Verd, Prince's Island, and St. Thomas.

NATIONAL DIVISIONS.—Portugal is divided into six great provinces, as follows :—

Provinces.	Towns.
Estremadura . . .	LISBON, Setubal.
Alentejo . . .	Evora, Elvas.
Beira . . .	Coimbra, Viseu.
Tras os Montes . .	Villa-real.
Entre Douro e Minho .	Oporto.
Algarve . . .	Faro.

ASIA.

PHYSICAL GEOGRAPHY.

Extent and Boundaries.—Asia is the largest of the great divisions of the globe, and comprehends all the countries to the east of Europe and northern Africa, and extends with its islands between lat. 10° S., and 78° N., and long. 26° E. to 190° E. Asia is closely connected with the other continents, being separated by no great sea distance from America on the N.E., and Australia on the S.E., joined to Africa by the *isthmus of Suez* on the S.W., and conterminous with Europe on the W. by an extensive boundary line, formed by the *Uralian* and *Caucasian Mountains*. Its whole area amounts to 17,500,000 square miles, being above four times the area of Europe.

Inland Seas, Gulfs, and Straits.—On the N.W. are the *Gulfs of Kara, Obi, and Yenesei*, offsets of the Arctic Ocean. On the E. side of Asia are a succession of broad arms or gulfs of the Pacific. Proceeding from N. to S., these are, the *Sea of Kamtchatka*, the *Sea of Okhotsk*, the *Japan Sea*, the *Yellow Sea*, and the *China Sea*. The N. part of the Japan Sea forms the *Gulf of Tartary*. The *Strait of Corea* connects the Japan Sea with the Yellow Sea. The *Formosa Channel* forms the principal entrance to the China Sea from the Pacific. The *Gulfs of Tonquin* and *Siam* both belong to the W. side of the China Sea. The *Strait of Malacca*, and the *Strait of Sunda*, connect the China Sea with the Indian Ocean. The *Bay of Bengal* and *Arabian Sea*, to the S. of Asia, are both broad arms of the Indian Ocean: on the E. side of the Bay of Bengal is the smaller *Gulf of Martaban*. The Arabian Sea forms on its E. side the *Gulfs of Cutch* and *Cambay*, and is connected on the W. with the *Persian Gulf* and *Red Sea*. At the entrance to the Persian Gulf is the Strait of *Ormuz*. The *Gulf of Oman* extends to the E. of the Persian Gulf, and gradually opens out into the Arabian Sea. The Red Sea is a long narrow channel between the shores of Arabia and Africa. At its N. extremity it divides into the two small *Gulfs of Suez and Akaba*. At its entrance are the *Gulf of Aden* and the *Strait of Babel-Mandeb*.

Capes and Peninsulas.—The principal headlands on the N. coast are *Cape Taimur*, *Severo Vostochni*, and *Cape Shelatskoi*. On the E. are the *East Cape*, *Cape Lopatka*, and the promontory of *Cambodia*. On the S. are *Cape Romania*, *Cape Negrais*, *Cape Comorin*, *Ras-al-Had*, *Cape Aden*, and *Ras Mohammed*. On the W. are the promontory of *Carmel*, and *Cape Khanzir*, on the coast of Syria; with *Capes Anamour*, *Khelidonia*, *Krio*, *St. Mary*, *Baba*, and many others, on the shores of Asia Minor.

The peninsulas of *Kamtchatka* and *Corea* lie on the *E.* side of Asia; those of *India* and *Arabia* on the *S.*; and that of *Asia Minor* on the *W.* The peninsula of *India* beyond the *Ganges*, or the *Indo-Chinese peninsula*, is prolonged southwards into the narrow peninsula of *Malaya*, which is connected with the mainland by the *isthmus of Kraw*.

Surface, Table-lands.—*Central Asia* is composed of two great elevated table-lands, a higher and a lower, each descending by gradual slopes and terraces to the level lowlands, while those table-lands themselves are traversed by numerous mountain chains and elevated ranges of country. The eastern system of these table-lands comprehends the elevated district of *Tibet*, and the great desert of *Gobi*: the western the plateau of *Iran* (*Persia*). Both these districts combined may occupy about two-fifths of the whole of Asia; the remainder is occupied partly by the terraces, by the intervention of which the elevated table-lands gradually sink towards the lowlands, and partly by the lowlands themselves. The most elevated portion of the eastern plateau is in *Tibet*, where it rises to the height of 10,000 to 14,000 feet. It then sinks gradually to the *N.* and *N.W.*, forming a series of terraces, which terminate in the low steppes around *L. Aral*. The western plateau is much smaller in extent than the eastern. The high table-land of *Iran* extends from the *Upper Indus* through *W. Asia* to the shores of the *Grecian Archipelago*. *Persia* forms its centre; to the *W.* are the *Turkish dominions*, and to the *E.* *Affghanistan*. The centre is intersected by several extensive mountain ridges, through which are some important passes from the highlands of *Persia* to the coast. Westward of *Persia* the table-land becomes more mountainous in the countries of *Kurdistan*, *Azerbaijan*, and *Armenia*. The peninsula of *Arabia* forms a continuation of the highlands of *W. Asia*.

Mountains.—The mountain-chains of Asia extend mostly in an east and west direction. Among these are the *Aldan* or *Stanovoi Mountains*, the *Altai*, the *Thian-Shan*, the *Kuen-lun*, the *Himalaya*, the *Hindoo-Koosh*, the *Mountains of Armenia*, and the chain of *Mount Taurus*.

Lowlands.—The lowlands of Asia may be divided into, 1. *Chinese Lowlands* on the E., commencing at Peking, and extending nearly to the tropic, enjoying a temperate climate and fertile soil; 2. the *Indo-Chinese*, comprehending Cambodia and Siam, a well-watered and good rice country; *Hindustan*, bounded by the Ganges and Indus, forming a great triangle; 4. *Syria and Arabia*, the southern part dry and desert, the northern watered by the Euphrates and Tigris; 5. the *Northern Siberian*, in extent more than half the others, stretching along the Polar Sea from the Ural Mountains to the Pacific Ocean, a cold and generally sterile region; 6. *Bucharia*, on the Caspian Sea and Lake Aral, with only occasional patches of fertile land.

Rivers.—The river-systems of Asia surpass in extent those of any other portion of the Old World. The drainage of a large part of the Asiatic continent is, however, unconnected with any of the surrounding oceans, but is received into inland seas or lakes, of which the *Caspian* and *Aral* possess the most extensive basins. The Arabian peninsula, together with some considerable tracts in the interior of Persia, and the desert regions of the Mongolian highland and other parts of the continent, are destitute of any perennial streams.

But the greater number of the large rivers of Asia have their origin in the mountains which border its interior plateaux, and flow through the surrounding lowlands into the seas which lie around its N., E., and S. coasts.

Of the *rivers flowing into the Arctic Ocean* the principal are the *Obi*, the *Yenisei*, and the *Lena*.

Rivers belonging to the basin of the Pacific.—The *Amour*, flowing into the Gulf of Tartary; the *Hoang-ho* and the *Yang-tse-Kiang*, flowing into the East Sea; the *Choo-Kiang*, flowing into the China Sea; and the *Meinam* into the Gulf of Siam.

Rivers belonging to the basin of the Indian Ocean.—The *Saluen* and the *Irawady*, flowing into the Gulf of Martaban; the *Brahmapootra*, the *Ganges*, the *Mahanuddy*, the *Godavery*, the *Krishna*, and the *Cauvery* into the Bay of Bengal; the *Tapty* and the *Nerbudda* into the Gulf of Cambay; the *Indus* into the Arabian Sea; and the *Tigris* and *Euphrates* into the Persian Gulf.

Inland Rivers.—The *Kur* and the *Aras* flow into the Caspian Sea; the *Syr* and the *Amoo* into the Sea of Aral; the *Tarim* into Lake Lopnor in the centre of the continent; the *Helmund*, rising in Affghanistan, into Lake Zurrah; and the *Jordan*, in Palestine, into the Dead Sea.

Lakes.—These are most numerous in the high plateaux in the interior of the continent, or among the mountainous tracts which lie around their borders. The *Caspian Sea*, however, lies in a depressed region, and the *Sea of Aral*, which is, next to the Caspian Sea, the largest salt water lake on the globe, only at a trifling elevation. *Lake Baikal*, near the Altai Mountains, lies at an elevation of 1420 feet above the sea.

The other principal lakes of Asia are, *Zaisang*, *Oubsa*, *Balkash*, *Issyk*, *Bosteug*, *Lopnor*, *Koko-Nor*, *Bouka-Nor*, and *Tengri-Nor*,—all on or near the high plateaux in the interior of the continent; *Tong-ting* and *Poyang*, in China; *Zurrah* and *Bakhtegan*, on the plateaux of Affghanistan and Persia; *Urumiyah*, *Van*, and *Goukcha*, on the Armenian table-land; the salt lake of *Koch-hissar*, in Asia Minor; with *Lake Tiberias* and the *Dead Sea* in Palestine. Salt lakes are also numerous in the Siberian plain.

Islands.—*Cyprus*, in the Mediterranean Sea, *Rhodes*,

Scarpanto, Kos, Samo, Khio, Mitylene, &c., off the W. coast of Asia Minor. The Liakhov Islands, lying in the Arctic Ocean, off the N. coasts of Asia, embrace Kotelnoi, Fadieosk, New Siberia, Liakhov, and others : the Bear Islands are a small group further to the E. On the E. side of Asia are the *Aleutian Islands*, the *Kurile Islands*, *Tarakai* or *Saghalien Island*, *Yesso*, the *Japan Islands* (comprising *Niphon, Sikokf, Kiusiu*, and many of smaller size), the *Loo Choo Islands*, *Formosa*, and *Hainan*.

The *Asiatic* or *Eastern Archipelago* is the largest collection of islands on the globe. These may be arranged under five groups :—

1. *Sumatra, Java, Bali, Lombok, Madura, Banca, Billiton*, and the western and larger portion of *Borneo*.

2. *Celebes, Sumbawa, Flores, Timor, Sandal-wood Island*, and the eastern part of *Borneo*.

3. *Ceram, Booro, Gilolo, Amboyna* (the Molucca or Spice Islands), *Timorlaut, Arroo*, and *Papua* (the latter coming, however, within the range of Australasia).

4. *Mindanao, Sooloo Islands, Palawan*, and the north-east part of *Borneo*.

5. *Luzon*, and all that portion of the Philippine islands stretching from lat. 10° to 19° N.

The islands of the Eastern Archipelago are all more or less of volcanic origin, and exhibit, at the present time, active volcanoes in numerous localities.

Mineral Products.—The mineral products of Asia are numerous, and have been known from remote antiquity. Precious stones are abundant : amethysts, topazes, and rock-crystals are found in the Altai, Himalaya, and Ural mountains ; cornelians and agates in W. India ; beryl and lapis lazuli near Lake Baikal ; sapphires and rubies near Ceylon ; diamonds in the Deccan, Borneo, and Ural mountains ; mercury in China and Japan ; copper and iron in the Ural mountains, and lead in Da-Uria, China, Armenia ; gold or gold dust in various localities.

Climate and Vegetation.—The vegetation of Asia varies with its

different regions. N. of lat. 60°, scarcely any vegetable products are seen, except birches, mosses, and lichens. In S. Siberia, and indeed as far S. as the chain of the Hindoo-Koosh, the vegetation in a great measure resembles that of N. and central Europe, though all the great table-land of E. Asia is remarkably bare of timber. In the cultivated plains of Bokhara and Cabool, grapes, melons, pears, figs, and other fruits common to Europe, grow in great perfection. N. of the Caucasus, the country is thinly covered with vegetable products, and those are of an inferior quality; but immediately S. of that chain, the cedar, cypress, juniper, oak, and the fruits common to S. Europe begin to flourish luxuriantly. The region of Asia S. and E. of the Himalaya, comprising the Indian peninsulas, with China Proper, and the Asiatic Archipelago, is unrivalled for the number and richness of its vegetable products. These include the plantain, banyan, ebony, iron, rose and sandal-wood trees; bamboos, gum, varnish, and dye-woods, in immense variety: with the betel, bread-fruit, and banana, guava, mango, and a multitude of other fruits; sugar, opium, cotton, indigo, and numerous valuable articles of culture. The teak tree, tea, sago, camphor, cloves, mace, and nutmegs are peculiar to this part of the globe. Wheat is raised at an elevation of 10,000 feet in the Himalaya mountains.

Zoology.—The zoology of the N. of Asia partakes of the character of that of N. Europe. In the central and southern countries are found the elephant, rhinoceros, Bengal tiger, and many other formidable animals, with the camel, auroch, yaik, musk-deer, argal, Thibet goat; and it is believed that all the domestic animals of Europe (the sheep perhaps excepted) have been originally derived from Asia. Asia has comparatively a less variety of birds and reptiles than of quadrupeds, but the cassowary, bustard, pheasant, domestic fowl, and a variety of other gallinaceous birds are abundant; and among reptiles, the Indian python, the cobra-de-capello, the gaviel, or crocodile of the Ganges, are formidable in the highest degree.

People of Asia.—Asia is considered the cradle of the human race, from whence the various nations and tribes have issued to people the other parts of the world. Asia is supposed to contain, with its islands, 626 millions of inhabitants. The races inhabiting Asia may be divided into 1. The Semitic, including Syrians, Arabs, Jews, and the

descendants of the ancient Chaldeans or Aramæans ; 2. The Persian Kurds, Ossetes, Armenians, Georgians, Mingrelians ; 3. The Turks, forming a numerous race of Central Asia ; 4. The Samoiedes, N. Asia ; 5. The Mongols, Buriats, Kalmucks, Tunguses, and other tribes in N.E. Asia ; 6. The Japanese and Chinese ; 7. The Malays, inhabiting Malaya and the islands of the Eastern Archipelago.

NATIONAL DIVISIONS.

I. TURKEY.

Boundaries and Extent.—Turkey in Asia embraces the W. portion of the Asiatic continent. It includes the peninsula of *Asia Minor* (lying between the Black and Mediterranean Seas) ; *Syria*, on the E. borders of the Mediterranean ; the countries watered by the Tigris and Euphrates, and part of *Armenia* ; besides the islands of Cyprus, Mitylene, Scio, Samos, Nicaria, Patinos, Cos, Rhodes, and Scarpanto. It is bounded *E.* by *Persia*, *S.* by the *Persian Gulf* and *Arabia*, *W.* by the *Mediterranean*, *N.* by the *Sea of Marmora* and the *Black Sea*, and *N.E.* by *Russia*.

Natural Features, Climate, &c.—In *Asia Minor*, two mountain chains run nearly E. and W., and the district between them forms an elevated table-land studded with mountains, while the country interior to this plateau is watered by short rivers. The *Taurus* mountain chain stretches from E. to W. near its S. coast, rising frequently from 8000 to 10,000 feet in height ; and near the N. coast runs the other chain, less continuous and lofty, but comprising Mounts Olympus, Idus, &c. On the N.E. are the mountain ranges of Anti-Taurus ; and N. of these is the Euxine or Lazian range. The chief rivers are the *Kizil-*

Irmak (anc. Halys), *Yeshil-Irmak*, and *Sakaria* flowing into the Black Sea; the *Kodus*, *Grimalki*, and *Mendere* (anc. Hermus, Caicus, and Meander) into the *Ægean*; the *Sihoon* and *Jyhoon*, into the Mediterranean; and the *Euphrates*, forming the E. frontier. There are numerous fresh and salt water lakes. The climate varies with the locality; the elevated regions being cold and humid, the plains warm and fertile.

Syria extends from the shores of the Mediterranean to the banks of the Euphrates: its W. portion is a hilly region, while the E. is a desert.

Palestine, or the *Holy Land*, is the S.W. portion of Syria. The mountain ranges run mostly N. to S.; those of *Lebanon*, extending along the E. coast of the Mediterranean, form two parallel ranges, distinguished as *Libanus* and *Anti-Libanus*. The principal rivers are the *Orontes*, and the *Jordan* passing through the *Sea of Galilee*, and discharging itself into the Dead Sea.

Of the countries situated within the basin of the Tigris and Euphrates, the most northern part belongs to the plateau of Armenia, and is a succession of high mountain chains and elevated valleys. *Al-jezira* (or Mesopotamia), between the upper course of the two rivers, contains some fertile tracts, but a great part of it is desert. To the E. of the Tigris is Kurdistan, a mountainous region inhabited by the warlike race of the Kurds. *Irak-Arabi* (or *Babylonia*), further to the S., is naturally very fertile, but the rivers annually inundate all the lower portions, and convert them into immense marshes. Asiatic Turkey has in general a warm and delightful climate; the valley of the Jordan, owing to its depression, is the hottest part of the country.

Inhabitants. — The population of Asiatic Turkey embraces Turks, Greeks, Syrians, Jews, Arabs, Armenians, and Kurds. The high plains in the interior of Asia Minor are occupied by the Turkomans, a nomad race. Through-

out Asiatic Turkey, as in the European provinces of the empire, the Armenians are the most industrious class of the population. The whole of Turkey in Asia is very thinly inhabited. It is said to contain 10 millions of inhabitants. The Turks are decreasing in number, while the Greek and Armenian part of the population is steadily increasing.

Industrial Pursuits, &c.—These are in a backward condition. Great numbers of horses and cattle are reared in the interior of Asia Minor. Manufactures are but little pursued, except in some of the larger towns, in which silk and cotton fabrics, gold and silver thread, shawls, turbans, and leather, are made. *Smyrna*, and *Trebizond*, in Asia Minor, *Beyrout*, in Syria, and *Basra*, near the head of the Persian Gulf, are the chief seats of the maritime traffic. The means of internal communication are very defective : there are few regular roads.

The Government of Asiatic Turkey is similar to that of the European provinces of the empire. The Turks, and also the Arabs, follow the Mohammedan religion : the Armenians are Christians.

Provinces and Towns.—Turkey is divided into numerous *pashalicks*. The W. part of Asia Minor is called *Anatolia*, the E. is called *Room* or *Karamania*. The following are the principal towns in the different parts of Asiatic Turkey :—

TOWNS.

Asia Minor	.	SMYRNA, Kutayah, Brusa, Angora, Koniah, Kaisarieh, Trebizond, 'Tarsus, Adana.
SYRIA	. .	<i>Aleppo</i> , Antioch, Damascus, Jerusalem, Tripoli, Beyrout, Acre.
Turkish Armenia		<i>Erzeroum</i> , Diyarbekr, Mush, Van.
Al-Jezira	. .	<i>Mosul</i> (Nineveh).
Irak-Arabi	. .	<i>Bagdad</i> , Bassorah, Hillah (Babylon).
Cyprus	. .	<i>Nicosia</i> .

II. ARABIA.

Boundaries and Extent.—Arabia is the most westerly of the three great peninsulas of S. Asia. It is bounded *N.* by *Turkey in Asia*, *E.* by the *Persian Gulf* and the *Gulf of Oman*, *S.* by the *Gulf of Oman* and the *Indian Ocean*, and *W.* by the *Red Sea*. Its area is 1,200,000 square miles.

Natural Features, Climate, &c.—The greater part of Arabia is desert, on which account much of the country is unknown. Its centre, in so far as explored by Europeans, is found to be a table-land, reaching in some places to an elevation of 8000 feet, sloping S.E. from a mountain chain prolonged from the Syrian Lebanon down to the strait of Bab-el-Mandeb, whence another chain extends N.E. parallel with the ocean as far as Oman. All N., from Hedjaz to the Euphrates, is a continuous plain of moving sands, and a similar region occupies most of the S. half of the peninsula. A deficiency of water is almost universal; but wherever a small river irrigates the soil, there is a most luxuriant vegetation. The climate is the driest in the world, the dry season being prolonged during the entire year in the level parts.

Inhabitants.—The population of Arabia is variously estimated at from 7 to 12 millions. The inhabitants settled around the coast appear to have a distinct origin from the *Bedwins*, or true Arabs, who are the traditional descendants of Ishmael, and wander with their flocks and herds, dwelling in tents, and subsisting partly by plunder. The *Wahhabees*, who form a distinct sect of Mohammedans, occupy the interior of the country, having subjected a great portion of it to their dominion at the commencement of the present century.

Industrial Pursuits.—Agricultural processes are very rude, and

manufactures extremely backward. The Bedwin women weave hair tent-coverings and bags, and coarse linen and woollen fabrics. Rude matchlocks and other arms are made on the W. and S. coasts, mostly by foreigners. The trade of Arabia is considerable, and large quantities of merchandise are brought by caravans and by sea from all the surrounding countries. *Mocha* and *Loheia* are centres of a large coffee trade.

Government, Religion, &c.—A part of Arabia is under Egyptian rule; other parts compose the *imamats* of Muscat and Yemen, the first named of which is a dominion of some consequence. The rest of the country is shared among an uncertain number of petty states. The government of the Bedwins is strictly patriarchal in each of the numerous tribes. The religion of the country is Islamism, which had its origin here towards the end of the sixth century. The Arabic language, called vulgar, to distinguish it from that of the Koran, is used over all the N. of Africa, and extends even to the S.E. of Asia, being the most widely spread on the globe. Literature and the arts are now almost unknown to the present semi-barbarous race of inhabitants.

Provinces and Towns.—The ancients divided Arabia into three parts. *Arabia Petræa*, the N.W. portion of the country; *Arabia Felix*, in the S.W.; and *Arabia Deserta*, embracing the greater portion of the remainder. But the native division of the country is into seven provinces, as follow :—

Provinces.	Towns.
El-tour Sinai . . .	<i>Akaba.</i>
El-Hedjaz . . .	MECCA, Medina.
Yemen . . .	<i>Sana, Mocha, Aden-Loheia.</i>
Hadramaut . . .	<i>Makallah.</i>
Oman . . .	<i>Muskat, Rostak.</i>
Lachsa . . .	<i>El-Katif.</i>
Nedjed . . .	<i>Derayeh.</i>

The town and promontory of *Aden*, on the S.E. coast of Arabia, belong to Great Britain. Its fortifications, which had fallen into decay, are now being greatly extended and improved; and, with

the natural advantages of its situation, it will, most probably, become the Gibraltar of this part of the East. It is under the government of an English officer, and is garrisoned by a detachment of British troops. It is a station of the steam-boat passage to India.

III. PERSIA.

Boundaries and Extent.—Persia is bounded on the N. by *Turkestan*, the *Caspian Sea*, and *Russian Armenia*; on the W. by *Turkey*; on the S.W. and S. by the *Persian Gulf*; and on the E. by *Beloochistan* and *Affghanistan*. Its area is loosely estimated at 450,000 square miles.

Natural Features, Climate, &c.—The central part of Persia forms a table-land. In the N. and E. is the large tract called the *Great Salt Desert*, and towards the S. the *Desert of Kerman*. The N.W. province (*Azerbaijan*) is an elevated mountain-region. High chains of mountains extend through the N., W., and S.W. parts of the country, separating the interior plateaux from the plains which border on the Caspian Sea upon one side, and the Persian Gulf and the Tigris upon the other. The absence of sufficient water is one of the greatest disadvantages suffered in Persia. Excepting the *Aras*, forming the N.W. frontier, the *Sefid-Rood* and *Gorgan*, which enter the Caspian Sea, the *Kerah*, *Karun*, *Jerahi*, &c., affluents of the *Tigris*, and *Shat-ul-Arab*, in Khuzistan, and the *Bundemir* in Fars, the rivers are quite insignificant, and by far the greater portion of the country is arid and unproductive. *Azerbaijan* and the Caspian provinces, however, must be excluded from this general description. N. of the Elburz mountains the country is covered with dense forests of oak, elm, beech, &c., interspersed with fine pastures and numerous orchards and vineyards; the climate of these provinces is very similar to that of Europe. The principal islands in the Persian Gulf are *Kishm* and *Ormuz*.

Inhabitants.—The population of Persia is estimated at about 8 millions.

The *Parsees*, who appear to preserve more fully than the rest a purity of descent from the ancient Persians, are now nearly confined to the city Yezd, and some towns in Kerman, where they still retain fire-worship. The population of the towns and settled districts, generally, is a race descended from Persians, Turks, Tartars, Georgians, Armenians, Arabs, and all the other nations who have at different periods held sway in the country. The Persians are a handsome, active, and generally warlike people. The nomadic tribes consist of Arabs in the S., Turkmans, Moghuls, Uzbecks, in the E. and N.E., and Kurds in the W. They live in tents, subsisting on the produce of their herds, and on plunder; and they furnish most part of the armed force, which has been lately estimated at 80,000 armed men.

Industrial Pursuits, &c.—Besides grain, the principal products of Persia are cotton, tobacco, silk, gall-nuts, opium, gum-ammoniac, assafoetida, and other drugs. The principal manufactures are silk fabrics of all kinds; in the chief cities, shawls of goats'-hair, carpets, felts, cotton cloths, cutlery and arms, glass, pottery, leather, and saddlery. The commerce is extensive, notwithstanding the absence of any roads but mule tracks. It is chiefly with the adjacent countries, with Russia, by way of the Caspian, and with British India and England by way of the Persian Gulf.

The *government* of Persia is a despotic monarchy. The *Shah* is assisted by a *Grand Vizier*, who exercises control over the military and foreign departments, and by a lord-high-treasurer, who superintends the revenue and home arrangements. The people are almost universally followers of the Mohammedan religion.

Provinces.	Towns.
Azerbijan . . .	<i>Tabreez.</i>
Irak-Ajemi . . .	TEHRAUN, Ispahaun.
Ardelan . . .	<i>Sennah.</i>
Luristan . . .	
Khuzistan . . .	<i>Dizfool, Shuster.</i>
Fars . . .	<i>Shiraz.</i>
Laristan . . .	<i>Lar.</i>
Kerman . . .	<i>Kerman.</i>

Provinces.	Towns.
Ghilan . . .	<i>Resht.</i>
Mazanderan . . .	<i>Balfroosh.</i>
Khorassan . . .	<i>Meshed, Nishapoor.</i>
Yezd	<i>Yezd.</i>

IV. AFFGHANISTAN AND BELOOCHISTAN.

Boundaries and Extent.—Affghanistan and Beloochistan lie between Persia and India ; the former is situated to the N., while the latter extends along the shores of the Indian Ocean. *Affghanistan* is bounded on the *N.* by *Independent Tartary*, on the *E.* by *Hindustan*, on the *S.* by *Beloochistan*, and on the *W.* by *Persia*. *Beloochistan* is bounded on the *N.* by *Affghanistan*, on the *E.* by the province of *Scinde*, on the *S.* by the *Arabian Sea*, and on the *W.* by *Persia*. The estimated area of the two countries is about 385,000 square miles.

Natural Features, Climate, &c.—The N.E. part of Affghanistan is covered with high and rugged mountains, which belong to the system of the Hindoo-Koosh. Along the E. frontier of the country extends the range of the Soleimaun mountains. The S.W. part of the country is a desert. The chief rivers are the *Cabool*, *Helmund*, *Lora*, &c., but none of them is of any size. Mountain chains of considerable extent stretch through the interior of Beloochistan in an E. and W. direction, parallel to the shores of the Indian Ocean.

Along the eastern foot of the Soleimaun range, between the base of the mountains and the banks of the Indus, extends a long and narrow tract of country called the *Damaun*, which forms the British frontier in this direction. The ascent from this lower track to the tablelands of Affghanistan lies through the *Khyber pass*, in Affghanistan, and the *Bolan pass*, in the N.E. of Beloochistan. These passes constitute the two great roads by which India is reached from the westward.

Inhabitants.—The population of Affghanistan is about 5,000,000. The population comprises Beloochees, Asbeks, Huzarehs, Eimauks, Persians, and Hindoos, but the great mass are of the Affghan race, and Mohammedans of the Soonite sect. The Affghans are rude, turbulent, and warlike; many of the tribes are nomadic, though others lead a more settled life.

Industrial Pursuits.—Manufactures and husbandry are both alike in a very low condition: carpets are made at *Herat*, but other manufactures are few, and mostly confined to cotton, woollen, and silk stuffs for home use, with saddlery, harness, and cattle trappings. The vegetation in the low lands is that of India; in the uplands, the timber trees, herbs, and fruits of Europe, grow wild.

NATIONAL DIVISIONS.—*Affghanistan* is subdivided into three separate principalities as follow:—

			Towns.
Cabool	.	.	CABOOL, Ghuznee, Peshawur, Jelalabad.
Candahar	.	.	<i>Candahar.</i>
Herat	.	.	<i>Herat.</i>

Beloochistan is subdivided into the six following provinces:

			Towns.
Kelat	.	.	KELAT.
Sarawan	.	.	<i>Sarawan.</i>
Cutch-Gundava	.	.	<i>Gundava, Dadur.</i>
Jhalawan	.	.	
Lus	.	.	<i>Belah.</i>
Mekran	.	.	<i>Kedje.</i>

Government.—Each of the three principalities of Affghanistan is under the government of a native ruler. The principal native ruler in Beloochistan is the Khan of Kelat.

V. HINDOSTAN.

Boundaries and Extent.—Hindustan (or India Proper) embraces the more western of the two great Indian peninsulas, and extends from the chain of the Himalaya mountains on the N. to Cape Comorin on the S. It is bounded on the E. by the *Bay of Bengal*, and the valley of the *Brahmapootra*; on the W. by the *Arabian Sea*, and the chain of the *Soleimaun Mountains*. Its area is about 1,000,000 square miles, or nearly nine times the area of Great Britain and Ireland.

Natural Features, Climate, &c.—Hindustan consists of a vast plain in the N., and of high plateaux bordered by mountain-chains, in the centre and S. The mountain ranges are the *Himalaya* on the N., extending between two plains, viz. a low alluvial plain on the S., drained by the Ganges and the *Brahmapootra*, and the elevated table-land of Thibet on the N. and N.E. The mountains terminate on the S., towards the plain of the Ganges, in a wall-like range from 4000 to 5000 feet high. Between these and the higher ranges lie the fertile plains of Nepaul, Bhotan, and Assam. To the N. the enormous masses are separated from one another by the valleys of Cashmere, the Indus, and the Sutleje. The mean elevation of the ranges has been estimated at from 16,000 to 20,000 feet. The length of the range is estimated at 1500 miles; the breadth varies from 100 miles to 350 miles.

The other mountains are the *Vindhya* in the valley of the Ganges, and the *E. and W. Ghauts* of the S. peninsula.

The principal rivers on the N. and E. are the *Ganges* and the *Brahmapootra*, with their numerous tributaries, originating in the Himalaya, and flowing into the Bay of Bengal; the *Godavery*, *Kistnah*, *Penaar*, and *Cauvery* also discharge their waters into the Bay of Bengal. On

the W. side the *Indus* and its tributaries flow S. from the Himalaya, and discharge their waters into the Indian Ocean. The *Nerbudda* and *Tapti* are the only other rivers of any magnitude that flow from the interior westward. The river courses indicate that the elevated portions of this great peninsula are towards the N. and N.W., and that the surface has a continuous declination to the E. and S.E. coasts. There are no lakes of any magnitude. The country is naturally divided into the plain of the Ganges, and the plain of the Indus, or northern region; the *Deccan*, or middle region, which extends S. from the Nerbudda river, and the southern region, comprehending the apex of the peninsula S. of the gap of Coimbatour.

Few metallic mines of any importance are wrought. Diamonds are found in the Deccan, and cornelians in the W. part of the peninsula. Among the native animals, the elephant, lion, tiger, leopard, buffalo, and goat, are the most remarkable.

The climate of Hindostan is tropical and subtropical. In the S. and middle regions the heat is very great; in the N., the elevated regions of the Himalaya have a temperate and delightful climate. The *monsoons*, or periodical winds, which prevail on both sides of the peninsula, bring periodic rains. Many portions of the valleys of the Ganges and Indus are very fertile, producing the cereal grains and pulses, sugar, indigo, cotton, and spices. In the S. regions, the country is in a more uncultivated state, and more densely covered with forests, but interspersed with many fertile cultivated plains.

Inhabitants.—Hindostan contains upwards of 130,000,000 inhabitants, of whom about six-sevenths are included under the general name of Hindoos. The remainder consists of various foreign settlers in India, among whom are Arabs, Persians, Turks, English, Portuguese, and other Europeans.

The Hindoos, though commonly spoken of as one people, really consist of an immense number of families and races, among whom

striking differences, both of appearance, language, and customs, prevail. The Hindoo population is divided into four classes, or *castes*; these are the *Brahmans* (or priests), *Kshatriyas* (or soldiers), *Vaisyas* (or merchants), and *Sudras* (or artizans). More than thirty different languages are spoken in India, nearly all of which are either wholly or partly derived from the *Sanskrit*,—the ancient and beautifully classical language of the country, and that in which its sacred books, and other copious literature, are written. Though no longer a spoken language, the Sanskrit is still cultivated by the learned classes throughout India: it possesses remarkable affinities with most of the languages of Europe and Western Asia, nearly all of which are included with it in the same great class of Indo-European languages (see p. 32).

The principal modern dialects are the *Hindustanee*, *Bengalee*, *Teloogoo*, *Tamul*, *Mahratta*, &c.

Nine-tenths of the people of Hindostan are followers of the *Brahminical* religion. Brahma, Vishnu, and Siva, are the three great objects of worship. There are also numerous Mohammedans, and other sects of less importance. Of late years, great efforts have been made to convert the natives to Christianity, and the whole peninsula is now divided into three dioceses (those of Calcutta, Madras, and Bombay), each under the spiritual direction of a bishop of the English Colonial Church. The Holy Scriptures have been translated into most of the principal languages of India, and numerous missionary stations are maintained in different parts of the country.

Industrial Pursuits.—Agriculture forms the occupation of the vast majority of the people of India, but it is conducted in the rudest and most imperfect manner, and frequently with the most defective implements. The natural fertility of the soil, however, generally secures a sufficient supply of food, and leaves even a surplus for exportation; still, on any occasion of unusual drought, famine prevails to a great extent.

The overflow of the rivers is the great means of irrigating the land, and the waters are preserved by the aid of tanks, or artificial ponds, and wells, which are numerous formed in all the cultivated

districts. Among the objects of cultivation, one of the most important is *rice*; the others are the cotton-plant, sugar-cane, mulberry, coffee tree, and numerous cereal grains.

Manufactures.—The most important are those of fine cotton and silk fabrics, and shawls; of the latter, those made from the hair of the Cashmere goat are the most highly esteemed. The fine muslins of Dacca were for ages held in the highest estimation, and constituted a most important branch of national industry; but the introduction of the cheaper fabrics produced by British machinery has in a great measure superseded the use of these, and the native manufactures have consequently much decayed.

Commerce.—The commerce of India is considerable, though a vast proportion of the resources of the country is still undeveloped. The *Exports* are indigo, opium, coffee, sugar, silk, wool, drugs, perfumes, spices, and precious stones. The *imports* are chiefly the cotton, woollen, and other manufactures of Britain, with hardware goods, earthenware, and glass, fire-arms, and various articles for the use of the European residents.

Internal Communication.—The means of internal communication are miserably defective. The roads through India are mere tracks; but in the neighbourhood of large towns, as Calcutta, &c., good roads have been lately formed. The river navigation, by means of *steamers*, has also been extended; and a *railway* has been commenced from Calcutta to Mirzapor (a distance of 500 miles).

NATIONAL DIVISIONS.—Hindustan is divided into, 1st, *The British Territories*, or those parts which are directly under British rule; 2nd, *The Native States*, which are tributary to Great Britain (otherwise called *protected*, or *dependent states*); and 3rd, *The Independent States*.

I. BRITISH TERRITORIES.

Government.—The political government of British India is chiefly in the hands of the East India Company, subject to the supervision of the sovereign, through the medium of a body denominated the Board of Control. The supreme administration of affairs is entrusted to a *governor-general*, who is appointed by the court of directors of the East

India Company (subject to the approval of the government), and who is assisted by a council of five members. The governor-general has the power of making laws for the whole of British India, subject to the approval of the home government, and he has the sole direction of the army, which is under the command of a commander-in-chief.

The whole of British India is divided into *three presidencies*, those of *Bengal*, *Bombay*, and *Madras*; and the governor-general is also the governor of the Bengal presidency, which is the most extensive of the three, and contains *Calcutta*, the seat of the government.

THE BENGAL PRESIDENCY embraces most of the N.E., N., and N.W. parts of India, including nearly the entire valley of the Ganges, to which has lately been added the greater part of the *Punjab* (or district watered by the five tributaries of the Indus). It also includes *Assam*, *Aracan*, and other territories on the E. side of the Bay of Bengal, situated beyond the limits of Hindostan.

Provinces and Districts.	Towns.
Bengal (Proper) .	CALCUTTA, Dacca, Moorshedabad.
Bahar . . .	<i>Patna</i> , Bahar.
Orissa . . .	<i>Cuttack</i> , Pooree, or Juggernaut.
Benares . . .	<i>Benares</i> .
Allahabad . . .	<i>Allahabad</i> , Cawnpoor.
Agra . . .	<i>Agra</i> , Bhurtpore, Ajmere.
Delhi . . .	<i>Delhi</i> .
Meerut . . .	<i>Meerut</i> .
Rohilcund . . .	<i>Bereilly</i> .
The Punjab . . .	<i>Lahore</i> , Amritsir, Mooltan.

The provinces of Benares, Allahabad, Agra, Delhi, Meerut, and Rohilcund, are included under the general name of the *Upper* or

North-western Provinces, which are presided over by a lieutenant-governor, resident at Agra.

Upon the S. side of the *Sutlej* (a short distance from Lahore, and near the frontier of the Punjab) are the two important military posts of *Ferozepore* and *Loodheana*: near these places were fought (in 1845-6) the important battles of *Moodkee*, *Ferozeshah*, *Aliwal*, and *Sobraon*, by which the British became masters of the Punjab.

THE PRESIDENCY OF BOMBAY is the most westerly and the smallest of the three presidencies, and embraces the large province of Scinde, part of Gujerat, part of Candeish, part of Aurungabad, and N. and S. Concan.

Provinces and Districts.	Towns.
Island of Bombay	<i>Bombay.</i>
Gujerat . . .	<i>Ahmedabad.</i>
Scinde . . .	<i>Hyderabad, Meeanee, Kurrachee.</i>
Candeish . . .	
Aurungabad . .	<i>Aurungabad.</i>
N. and S. Concan	<i>Callianee, Gorah.</i>
Poonah . . .	<i>Poonah.</i>

The whole of the Indian *marine* is attached to this Presidency. It consists of only 1 frigate, 5 gun brigs, 6 corvettes, 4 armed steamers, and some smaller vessels.

THE MADRAS PRESIDENCY extends entirely across the southern part of the peninsula, embracing the coast from the *Chilka Lake* southwards to *Cape Comorin*, and a considerable tract of the W. coast.

Provinces and Districts.	Towns.
Circars . . .	<i>Visagapatam, Chicacole.</i>
The Carnatic	<i>Madras, Arcot, Vellore, Tranquebar, Tanjore, Trichinopoly, Madura, Pondicherry.</i>
Coimbatoor . .	<i>Coimbatoor.</i>
Malabar . . .	<i>Calicut, Cananore.</i>
Canara . . .	<i>Mangalore.</i>

Between the Madras and Bombay Presidencies is the town and territory of *Goa*, the principal of the Portuguese possessions ; they have also *Damaun*, N. of Bombay, and *Diu*.

II. PROTECTED STATES.

States.	Towns.
The Nizam's Dominions —	
Hyderabad . . .	<i>Hyderabad.</i>
Beeder . . .	<i>Beeder.</i>
Aurungabad . . .	<i>Aurungabad.</i>
Parts of Berar and Candeish.	
Nagpoor . . .	<i>Nagpoor.</i>
Mysore . . .	<i>Seringapatam, Bangalore.</i>
Cochin . . .	<i>Cochin.</i>
Travancore . . .	<i>Trivandrum.</i>
Sattara . . .	<i>Sattara.</i>
Colapoor . . .	<i>Colapoor.</i>
Sawunt Waree . . .	<i>Sawunt Waree.</i>
Gwalior and Malwah . . .	<i>Gwalior.</i>
Bhopaul . . .	<i>Bhopaul, Ashtah.</i>
Bundlecund . . .	<i>Jhansi.</i>
Rewah . . .	<i>Rewah.</i>
Gujerat . . .	
Cutch . . .	<i>Bhooj, Anjār.</i>
Rajpootanah . . .	<i>Ajmere.</i>
Bahawulpoor . . .	<i>Bahawulpoor.</i>
Oude . . .	<i>Lucknow, Oude.</i>
Cashmere (or Hill States)	<i>Serinagur (or Cashmere).</i>
Sikkim . . .	<i>Sikkim.</i>

III. INDEPENDENT STATES.

Nepaul . . .	<i>Catmandoo.</i>
Bhotan . . .	<i>Tassisudon.</i>

The *army* maintained in British India consists of about 295,840 men, being distributed into *British* troops (26,582), *Native* (157,758), and *Contingent Native* (111,500).

ISLANDS OF INDIA.

CEYLON, a large island to the S. of India, and belonging to Great Britain, has an area of 24,664 square miles. It is separated from Hindostan by the *Gulf of Manaar*.

The southern and central part of the island is elevated and mountainous: the E. shore is bold and rocky, with deep water. The W. shore is uniformly low, and indented with bays and inlets. The N.W. part of the island is almost joined to the continent by the island of Manaar, and sand-banks which are only covered at high water (called *Adam's bridge*). The climate of Ceylon resembles that of the Indian peninsula. The characteristic vegetable productions are the cocoa-nut palm, and the cinnamon plant. Snakes and reptiles abound. Elephants are very numerous, especially in the N. and E. provinces.

The population of Ceylon amounts to 1,421,600. Little is known of the aboriginal inhabitants of Ceylon; at present they are similar in all respects to the Hindoos of the neighbouring continent, and consist of *Singalese*, inhabiting the interior and parts of the coast, Malabars, Europeans, and negroes.

The *Government* consists of a governor and executive council of five members, and legislative council of eight members. The island was constituted a bishopric (*Colombo*) in 1846, with a bishop and clergy of the English Church. Buddhism is almost universally the religion of the Singalese. Ceylon is now the central point for the oriental mail packets.

Chief Towns: Colombo, Kandy, Trincomalè, Pointe-de-Galle.

The Laccadive and Maldive Islands, on the W. and S.W. coast, are of small size and trifling elevation above the sea, and mostly protected by coral reefs. The most valuable production is the cocoa-nut palm.

EASTERN INDIA, OR THE INDO-CHINESE PENINSULA.

Boundaries and Extent.—The south-eastern peninsula of Asia (called *India beyond the Ganges*, or the *Indo-*

Chinese peninsula), is bounded on the *N.* by *China* and *Tibet*, on the *E.* and *S.* by the *China Sea*, and on the *W.* by the *Bay of Bengal* and the plains of *Northern Hindostan*. It embraces altogether about a million of square miles, and is chiefly divided among three native states (*Birmah*, *Siam*, and *Anam*); besides these there are some small Malay states in the extreme *S.* of the peninsula, and some considerable territories which belong to Great Britain.

Natural Features, Climate, &c.—The Indo-Chinese peninsula consists of several long river valleys, which lie in the direction of *N.W.* and *S.E.*, and are divided by a succession of mountain-chains. The rivers by which these valleys are watered are the *Sang-Koi*, the *Mekon*, the *Meinam*, the *Saluen*, and the *Irawady*, all of which flow through rich alluvial plains in their lower courses. The narrow peninsula of *Malaya*, which is prolonged to the *S.* of the entire region, has a chain of hills running through its whole length.

The climate and natural productions resemble those of *Hindostan*. Extensive forests, in all parts of the peninsula, yield abundance of valuable timber.

Inhabitants.—The total population of the Indo-Chinese countries is estimated at from 22 to 25 millions. They are all thinly peopled, compared to other portions of *E.* and *S. Asia*.

The Indo-Chinese constitute a distinct race. They are more robust and hardy than the *Hindoos*, but are below them in industrial skill. Throughout these countries the native governments are of the most despotic character. In *Birmah* and *Siam* the Buddhist religion prevails, and is also professed by some of the people of *Anam*. Throughout the peninsula the most abject superstition prevails, and the grossest idolatries are practised.

Industrial Pursuits.—Agriculture is the chief branch of native industry. Rice is the chief article of food. Cotton, indigo, tobacco,

and the mulberry are generally grown. Manufactures unimportant. The Birmanese are famous for the huge bells which they cast. The people of Cochin China excel in ship-building.

PROVINCES AND TOWNS.

1. *The Kingdom of Birman* is the most westward of the three great countries of the Indo-Chinese peninsula; it is traversed from N. to S. by the river *Irawady*, which is navigable for large vessels as far as Ava. *Chief towns*, *Minchobo*, Ava, Amerapoor, Rangoon, Pegu.

2. *The Kingdom of Siam* lies to the E. of Birman, and embraces the extensive plain watered by the river Meinam, together with a part of the district of Cambodia. *Chief town*, *Bankok*.

3. *The Empire of Anam* lies upon the E. side of the peninsula (chief town, *Hué*), and embraces the countries of *Tonquin* (chief town, *Cachao*), *Cochin-China*, *Chiampa*, and part of *Cambodia* (chief town, *Saigong*).

Laos.—The country of the *Laos* occupies the centre of the Indo-Chinese peninsula. Its boundaries and area are wholly unknown to Europeans: its population has been loosely estimated at 1,000,000. It is reported to have a fertile soil. An independent kingdom is said to exist here, the capital of which is *Lanchang*; but the outlying tribes are supposed to be tributary to their more powerful neighbours. In habits, customs, religion, and language, the *Laos* most resemble the Burmese.

The *Malay Peninsula*, in the extreme S. of continental Asia, is subdivided into many small native states; the more northern are subject to Siam. The Malays are expert navigators, and many of them are pirates. Principal towns, *Malacca*, *Quedah*, *Salangore*.

THE BRITISH POSSESSIONS IN FURTHER INDIA consist of *Assam*, *Aracan*, the *Tenasserim provinces*, *Penang* or *Prince of Wales' Island*, *Malacca*, and *Singapore*. The whole of these territories are situated on the W. side of

the peninsula, and are dependencies of the Bengal Presidency.

1. ASSAM comprises the valley along the upper course of the Brahmapootra, having *N.* the *Himalaya*, separating it from *Bhotan* and *E. Tibet*; *S.*, the *Naga* and *Garras* mountains, which divide it from the *Birman territory*; and *W.*, *Bengal*. Its area is estimated at 18,200 square miles, and population at 603,000. Its surface is very fertile, densely wooded, and well watered. The *tea-plant* grows wild in parts of this province. Other products are gold dust, ivory, rice, amber, silver, &c. The chief towns are *Ghergong*, *Joorhath*, and *Gowhati*. *Saikwah* is the head-quarters of the British troops in this district.

2. ARACAN is a narrow strip extending along the *E.* side of the Bay of Bengal, having *E.* the Burmese dominions, from which it is separated by a high mountain range. Its area is estimated at 16,500 square miles. Population, 247,700. The coast is swampy and very unhealthy, but there are many good harbours and large islands. The chief rivers are the Aracan, Myoo, Heng, and Sando-way, all in some degree navigable. The chief products are rice, indigo, cotton, timber, ivory, tobacco, and silk. Iron, coal, and naphtha are found along the coast. Chief towns, *Akyab* and *Aracan*. Chief military station, *Kyouk Phyoo*.

3. The TENASSERIM PROVINCES consist of a long and narrow slip of territory, between lat. 11° and $17^{\circ} 40'$ N., and long. $97^{\circ} 30'$ and $99^{\circ} 20'$ E., having *E.* a mountain chain separating them from *Siam*, *W.* the *Indian Ocean* and *Saluen river*. Area about 32,500 square miles; population 118,000, partly *Siamese* or *Malays*, but many *Karean* or wild tribes. The surface is mostly mountainous, and covered with fine forests; there are, however, some very extensive and rich alluvial plains, well adapted for the cultivation of cotton, indigo, and tobacco, which, with rice,

sugar-cane, &c., are the chief products. The climate is healthy. This district is now subdivided into the provinces of Amherst, Tavoy, and Mergui (with towns of the same names), which, with *Maulmein* (in the province of Martaban), are the principal seats of foreign trade. The ports are entirely free, and many vessels are built on the coast.

4. **PENANG, OR PRINCE OF WALES' ISLAND**, lies off the W. coast of the Malay peninsula, in the straits of Malacca. Length, 16 miles; breadth, 11 miles; area, 160 square miles. Population, 38,400, mostly Malays, Chinese, and Chulias. Surface densely wooded and highly picturesque, and mountainous in the N. Climate very healthy. It is well adapted to raising spices, which are exported to a large extent. The capital, *George Town*, is at its N.E. extremity, with a good and spacious harbour.

Wellesley Province is a small district on the W. coast of the Malay peninsula, immediately opposite Penang. It consists of a strip of country 35 miles in length by 4 miles in breadth. Area, 140 square miles. Population, 47,500, mostly Malays.

5. The town of **MALACCA**, on the S.W. coast of the Malay peninsula, with an adjacent territory of 1000 square miles, belongs to Great Britain. The climate is very healthy. The population of the town of *Malacca* is 12,100 : it is important as a military station of the British army.

6. The town of **SINGAPORE** is situated on an island of the same name off the S. extremity of the Malay peninsula, from which it is separated by a strait in one part only a quarter of a mile across. The area of the island is 275 square miles; population 50,000, of whom 20,000 are Chinese, and a few Europeans. The surface is generally low, undulating, and densely wooded; the climate is

healthy. The town has a commodious harbour, protected by a fort. It is a military station of the British army.

THE CHINESE EMPIRE.

The Chinese Empire embraces an area of more than four and a half millions of square miles, in which vast extent are included many countries in the central and E. parts of the continent. The principal of these is China Proper, in the S.E. part of the empire.

CHINA.

Boundaries and Extent.—China is bounded on the *N.* and *N.W.* by *Mongolia*, on the *W.* by *Tibet*, on the *S.* by the countries of the *Indo-Chinese peninsula* and the *China Sea*, and on the *E.* by the *Pacific Ocean*. Its greatest length is about 1600 miles; its breadth varies from 900 to 1300 miles. Its area is 1,298,000 square miles. It is shut out from its northern dependencies by the *great wall*, which extends over hill and dale for 1250 miles, varies from 15 to 30 feet in height, and is strengthened at regular intervals by large square towers.

Natural Features, Climate, &c.—China, so far as Europeans have been able to ascertain, consists of an elevated region in the *N.*; a great alluvial plain in the centre, through which the *Yangtze-Kiang* and *Hoang-Ho* rivers wind into the sea; and in the *S.* a region alternately undulating and interspersed with broad valleys and lofty mountains, which increase in elevation as they proceed westward. It is estimated that two-thirds of the country is mountainous. Next to the great rivers already named, the *Yun-ling*, flowing near *Pekin*, and the *Choo-Keang*, or *Canton river*, are of the highest importance. Lakes are

both numerous and extensive ; that of *Tong-ting* is said to be nearly 300 miles in circuit. The coast line has been estimated at 2500 miles in length, and it is alternately bold and rocky, or low and swampy ; it presents, however, many good harbours at the mouths of the rivers and elsewhere. In China the winters are colder, and the summers hotter than in the same parallels of W. Europe. The vegetable productions of the country belong chiefly to the temperate zone. The *tea-plant* is peculiar to this region, and the adjoining territory of Assam.

Inhabitants.—The population of China is reckoned at 367,000,000. In physical character the Chinese rank under the *Mongolian* family of man. The Chinese language is monosyllabic, and their letters express words and ideas. The fine arts have made no great progress ; and though education in reading and writing is common, yet they have no pretensions to learning or science. The *religion* of Confucius is that adopted by the court and upper classes, and consists in a refined deism, with a great reverence for ancestors, and for the moral precepts of Confucius. Buddhism is the religion of the great mass of the people in China-*Proper*, Manchooria, Mongolia, and Tibet. The *government* is an absolute and despotic monarchy : the different officers engaged in the administration of public affairs are styled *mandarins*, of whom there are nine grades.

Industrial Pursuits.—The density of the population, among other circumstances, has in many parts compelled the cultivation of every spot of ground at all capable of yielding produce for nutriment, and the mountain sides are often terraced and manured on principles of the strictest economy. The chief objects of culture are rice, tea, cotton, mulberry, and camphor trees, sugar-cane, and rhubarb. Very little of the land is devoted to pasturage, and animal food is not much used by the people at large, though with

the lower orders dogs are considered a luxury, and rats and mice are ravenously devoured.

Manufactures.—The Chinese manufactures are of the most varied and often of the most exquisite description. Porcelain, silks, nankeen, embroidery, and lacquered wares are unequalled for brilliancy, richness, and durability; and in carved goods in tortoise-shell, ivory, horn, in engraving, the manufacture of paper, ink, cabinet-work, &c., the Chinese abundantly testify their ingenuity. They excel also in ship-building and bell-casting; but all their manufactures are carried on without the aid of machinery. The commerce is mostly in the hands of the English.

Internal Communication.—The internal traffic of China is enormous: great part of it is carried on by means of the rivers. The *Imperial Canal* runs through the plain of China for 700 miles, and is a great highway of commerce, forming with the rivers a navigable communication throughout the country from *N.* to *S.*

Provinces and Towns.—China is divided into 18 large provinces, but of most of them little more is known to Europeans than the names.

PEKIN is the capital: other towns of importance are *Nankin* (near which are the ports of *Shang-hae*, *Ning-po*, *Fuh-chow*, and *Amoy*, now open to intercourse with all nations). *Canton*, also a free port, is the chief emporium of the foreign trade.

The island of *Hong-Kong*, at the mouth of the Canton river, constitutes a colony of Great Britain. Its chief town is *Victoria*, which gives the title to the see of the English colonial Church in this part of the world.

The other islands off the coast of China are the large island of *Formosa*, chief town *Tae-wan*; *Hainan*, off the *S.* coast, and the *Ladrone* islands.

The other countries included within the Chinese domi-

nions are *Tibet*, *Mongolia* and *Manchooria* (or *Chinese Tartary*), and *Corea*.

TIBET, situated to the W. of China, is a mountainous region, lying between the *Kuen-lun* chain and the *Himalayas*, and is broken up by narrow valleys, and contains numerous lakes and rivers.

The *climate* of Tibet is cold. Great numbers of sheep, goats, musk-deer, with *yaks* (of the buffalo species), are reared. Tibet is nominally subject to China. The *Buddhist* religion has its headquarters in Tibet. The country abounds with temples, and it is stated that 84,000 *lamas*, or priests, are supported by the government. The population is supposed to exceed one million. The *chief towns* are *Lassa* and *Shigatze*.

MONGOLIA and MANCHOORIA (or Chinese Tartary) extend from the 71st meridian eastward to the shores of the Pacific, and from the Great Wall of China on the S., to the summits of the Altai mountains in the N.

The estimated area is about 1,400,000 square miles: the population about two millions.

The E. part of Mongolia includes the Great Desert of Gobi, already described. There are some productive parts, feeding large herds of cattle belonging to the nomadic tribes. The Mongols are of the Buddhist religion, and live under various chiefs, who pay tribute to the Chinese emperor, but receive presents from him in return to a much greater amount.

Mongolia is divided into 56 *aimacks*, or chiefships, and again into 135 "banners" or military tribes, again subdivided into regiments. The chief towns are *Yarkand* and *Casgar*.

MANCHOORIA is divided from Mongolia by the chain of the *Khin-gan* mountains. The estimated area is about 700,000 square miles.

The whole coast is bordered, not far inland, by a mountain chain, probably 5000 feet in elevation, beyond which the country is wholly unknown to Europeans, but reported to send large quantities of corn,

pease, and *ginseng* (a medicinal herb) to China ; besides which, its principal products comprise rhubarb, timber, and live stock. The government is strictly military, except in *Leao-tong*, where it is organized as in China. The chief towns are *Moukden* and *Saghalin-oula*.

COREA, a peninsula lying between the Yellow and Japan Seas, tributary to China and also to Japan, has an area of 80,000 square miles.

The coast is elevated and fertile, but the interior is little known : the products and manufactures are similar to those of N. China. The chief town is *King-ki-tao*.

The *Loo Choo Islands*, between Japan and Formosa, are exceedingly fertile. The principal trade is with Japan, to which these islands are nominally subject, though they are essentially independent as regards internal administration.

JAPAN.

The Empire of Japan consists of an extensive group of islands, situated on the E. of the Asiatic continent, and embraces the large islands of *Nippon*, *Sikokf*, *Kiusiu*, and *Jesso*. The estimated area is 266,500 square miles.

Natural Features, Climate, &c.—These islands, especially Nippon and Kiusiu, are very irregular in shape, their coasts greatly indented, and surface very uneven. The mountains *Fusi* and *Siro-jama*, in Nippon, are active volcanoes, and estimated to rise respectively to 12,000 and 8000 feet above the sea, and are snow-clad. Rivers are numerous, and generally wide at their mouths, but their courses are short, and not navigable for many miles inland. The interior of Japan, however, remains quite unexplored by Europeans. The climate is in general mild and healthy, but hurricanes and earthquakes are of frequent occurrence. The soil is in many places sterile, but is very carefully cultivated. Rice, barley, and wheat, are the grains most commonly grown. The cotton-plant, mulberry-trees, the tea-plant, and tobacco, are also cultivated to some extent. In manufacturing industry, generally, the Japanese equal the Chinese ;

and their sword-blades, and other metallic goods, telescopes, clocks, silk and cotton fabrics, porcelain, lacquered and *japanned* goods, and paper, are particularly excellent.

Inhabitants.—The population of Japan is very uncertainly estimated at from 25 to 50 millions. The Japanese are of the Mongolian race, and are stout and well made. They have a written literature, some science, and a taste for music. Their language is different from that of the Chinese, being polysyllabic. No commerce is allowed with other foreign nations; and efforts of the Russians, French, and, more recently, of the Americans, for its establishment, have been decisively repulsed. Two centuries of peace have elevated the Japanese over all other extra-European nations of the old world.

The *government* is despotic, and, like some others in Asia, is shared by ecclesiastical and military sovereigns. A kind of feudal system prevails. The laws are very rigorous. The ancient religion is the *sin-siu*, whose priests were said to be descendants of the sun, but the majority of the population are adherents of Buddhism.

Chief Towns: JEDO, Miako, Matsmai.

Saghalien, or *Tarakai*, is a long and narrow island off the N.E. coast, separated from the mainland by the Gulfs of Tartary and Saghalien, and S. from Yezzo by the Strait of La Perouse; its N. part belonging to the Chinese, and the S. to the Japanese. Its inhabitants subsist mostly by fishing.

EAST INDIAN ARCHIPELAGO.

The general features, climate, and natural productions of these islands have been already described (see pp. 124—131). The Eastern Archipelago comprises the largest collection of islands on the globe, extending along the equator from the *S.E. coast of Asia* to the *W. of Australia*, and having the *China Sea* on the *N.*, the *Pacific* on the *E.*, and *S. and W. the Indian Ocean*.

Inhabitants.—Two distinct races of men inhabit this region. The *Malay*, forming the great bulk of the population, especially of the *W.* islands, is of a light brown or olive complexion, short stature, and robust body; strong and active in habits, in many communities con-

siderably advanced in civilization, in other situations, roving and restless pirates ; and differing, also, in physical form, in many of the islands. The *Papuan*, or black race, have negro features and curly hair, small stature, and small and puny form. The Hindoo faith is professed by a portion of the native races, but Mohammedanism is the prevailing religion. Christianity has been partially introduced into the European settlements.

SUMATRA is the most westerly, and next to Borneo the largest island. The greater portion of the E. and W. coasts belongs to the Dutch. The area of the island is about 130,000 square miles ; the population 2,000,000 or 3,000,000. *Chief towns*, *Padang*, *Acheen*, *Bencoolen*.

JAVA, the most important and populous island of the Archipelago, and the chief seat of the Dutch power in the East, contains, together with the adjacent island of *Madura*, an area of 50,000 square miles, and a population of 9,530,700 inhabitants. *Chief towns*, *Batavia*, *Samarang*, *Sourabaya*.

The chain of islands extending to the E. of Java are all subject to the Dutch, except *Timor* (the most easterly), the northern part of which belongs to Portugal. *Towns*, *Delly* and *Coepang*.

BORNEO is the largest island in the East Indies (and, next to Australia, the largest in the world), and has an area of 270,000 square miles, and a population of about 3,000,000. The whole of the W. and S. coasts, and also a portion of the E., are subject to the Dutch, whose chief town is *Pontianak*. The N. and N.W. coasts, comprising the territory of Borneo Proper, and the province of Sarawak, are subject to the British, whose chief town is *Sarawak*.

Labuan, off the N.W. coast of Borneo, also subject to Great Britain, has an area of 32 square miles.

CELEBES, an island of most irregular shape, to the E. of Borneo, has an area of 73,000 square miles, and a popu-

lation of about 2,000,000. The chief Dutch settlement is *Macassar*, which contains Fort Rotterdam, the seat of the governor.

The **MOLUCCAS**, or **SPICE ISLANDS**, include the islands of *Gilolo*, *Ceram*, *Amboyna*, &c., mostly subject to the Dutch.

The **PHILIPPINE ISLES** are the most northerly part of the Archipelago, and, next to Cuba, the most valuable colonial possession of Spain. There are at least 1200 islands, great and small. The principal islands are *Luzon*, *Mindanao*, and *Palawan*; the chief town, *Manilla*, in *Luzon*, has a population of 140,000. The total area of the Philippine Islands is 120,000 square miles; the population 5,000,000.

The *Sooloo* islands, to the S.W. of *Mindanao*, consist of above 60 islands, of which the principal is *Cagayan Sooloo*, whose chief town is *Soong*. These islands have long been noted for piracy.

ASIATIC RUSSIA.

ASIATIC RUSSIA consists of two distinct parts, 1. The *Caucasian Provinces*, and 2. *Siberia*. The former is of much less importance than the latter territory, but is important from its position on the frontiers of Europe and Asia.

1. THE CAUCASIAN PROVINCES.

Boundaries and Extent, &c.—The Caucasian provinces include the countries situated between *Turkey*, *Persia*, the *Caspian* and *Black Seas*, and the range of the *Caucasus* mountains, comprising the provinces of *Abasia*, *Mingrelia*, *Imeritia*, *Georgia*, *Shirvan*, and *Russian Armenia*.

The whole territory consists of elevated plateaux and lofty moun-

tains, interspersed with fertile and well-watered valleys. The chief rivers are the *Kur* and the *Aras*. All the Caucasian provinces, especially Georgia, exhibit great extremes of climate, the summer and winter temperatures presenting the most remarkable contrasts of heat and cold. The mean temperature of the year is, however, moderate, and the country generally healthy.

Inhabitants.—The population of these countries is estimated at 2,000,000. The people belong to the *Caucasian* family of nations, and are much celebrated (especially the females) for their personal beauty. The Russian government of these countries is strictly military. The majority of the people of Georgia are Christians of the Greek church, but most of the mountain tribes are Mohammedans. *Chief towns*, Tiflis, Erivan, Baku.

2. SIBERIA.

Boundaries and Extent.—*Siberia*, or *Asiatic Russia*, comprises all the northern part of Asia, extending from the *Ural Mountains* to the *Pacific Ocean* and *Behring's Strait*, and having *S.* the *Chinese Empire* and *Independent Turkistan*, and *N.* the *Arctic Ocean*, in which it comprises the islands of *New Siberia*.

Natural Features, Climate, &c.—The surface in the *S.* is elevated by the *Altai chain*, covered with forests, and interspersed with many fertile valleys; but by far the greater portion of *Siberia* is flat and sterile. In the *W.* are extensive *steppes*, inhabited by *Cossack* tribes, or roving *Kirghiz*, and all the *N.* half is a vast desert, peopled by *Ostiaks*, *Yakuts*, and other tribes in the lowest state of barbarism. The *Obi*, *Yenesei*, and *Lena* rivers, with their large and numerous tributaries, and the *Olenek*, *Indighirka*, and *Kolyma* traverse the country in a *N.* direction, and enter the *Arctic Ocean*. The principal lakes are those of *Baikal*, *Tchany*, and *Sumy*, with the Lake *Tenghiz*, which forms a part of its *S.* boundary. The cold of winter is extreme (from 20° to 72° below zero of Fahrenheit), while the summer heat is excessive.

Cattle are numerous in some parts, and in the N. reindeer, foxes, martens, beavers, and bears abound, the skins of which compose important articles of trade. Siberia is, however, chiefly valuable to Russia on account of its minerals.

The government has the monopoly of the gold washings. Manufactures are unimportant, except in some of the provincial capitals. *Irkutsk* has an imperial factory of woollens for the clothing of the troops, and it is the great entrepôt of the commerce of N.E. Asia.

Inhabitants.—The population is estimated at 2,900,000, of whom about half are Mohammedans and Pagans.

The governments are similar to those of European Russia; the army of Siberia consists of 16 battalions of infantry, and a brigade of artillery.

Provinces, Towns, &c.—Siberia is divided into two great regions, Western and Eastern Siberia, each of which is subdivided into provinces and districts as follows:—

Provinces.		Towns.
<i>Western Siberia :</i>		
Tobolsk	. .	<i>ОМСК, Tobolsk.</i>
Tomsk	. .	<i>Tomsk.</i>
<i>Eastern Siberia :</i>		
Irkutsk	. .	<i>Irkutsk.</i>
Yeniseisk	. .	<i>Yeniseisk.</i>
Yakutsk	. .	<i>Yakutsk.</i>
<i>Districts :</i>		
Okhotsk	. .	<i>Okhotsk.</i>
Kamtschatka	. .	<i>Petropaulovsk.</i>

The towns are few, and dwindle into mere villages towards the northern parts of the country. *Omsk* is a fortified town, and has a military school, founded by the Emperor Alexander, for 250 pupils; and also manufactories of military clothing.

TURKESTAN, OR INDEPENDENT TARTARY.

Boundaries and Extent.—Turkestan, or Independent Tartary, is bounded on the *N.* by *Western Siberia* and the *Russian government of Orenburg*, on the *E.* by *Chinese Tartary*, on the *S.* by *Persia* and *Affghanistan*, and on the *W.* by the *Caspian Sea*. The estimated area is 720,800 square miles.

Natural Features, Climate, &c.—Turkestan is mountainous in the *E.*, but elsewhere generally level, with a slope towards the *W.*, and in that direction the *Amoo* and *Sihoon rivers* flow through it to the *Aral Sea*, which is wholly comprised within its limits. But the *S.E.* and *E.* portions of the country, adjoining the plateaux of *Tibet* and *Affghanistan*, are traversed by advancing spurs of the *Hindoo-Koosh*, and other mountain-ranges of central Asia.

The *climate* exhibits great extremes of heat and cold ; and violent storms, accompanied by whirlwinds, are of frequent occurrence in the *steppes* and open plains.

Inhabitants.—The population of Turkestan is very various. The *Uzbecks*, a nomadic race, are the most numerous. The *Tanjiks*, who form the bulk of the fixed population, resemble Europeans in appearance and habits of industry. Besides these, there are *Turcomans*, *Khirghiz*, Arabs, Persians, &c. The total population is supposed to amount to about 4,000,000, chiefly Mohammedans.

Industrial Pursuits.—Agriculture is pursued in the districts capable of cultivation, and rice, wheat, barley, and other grains are produced. *Bokhara* is celebrated for its melons and grapes. The mulberry is extensively reared. But the most important source of wealth consists in the number of domestic animals, especially sheep and goats. The other animals are the camel, the ass, and the *yak*.

Manufactures are unimportant ; but the *commerce* is considerable, Turkestan being, from its position, the common field of interchange for the products of China, India, Persia, and Russia.

NATIONAL DIVISIONS.—Turkestan is divided into three principal states, or *khanats*, in each of which the ruler is

called the *khan*, or *emir*, whose authority is of the most despotic character.

States.					TOWNS.
Bokhara	.	.	.	.	<i>Bokhara.</i>
Khiva .	.	.	.	.	<i>Khiva.</i>
Kokan .	.	.	.	.	<i>Kokan.</i>

AFRICA.

PHYSICAL GEOGRAPHY.

Boundaries and Extent.—Africa is the south-western portion of the Old World, and is the only one of its continental divisions which stretches to the southward of the equator. It is bounded on the N. by the *Strait of Gibraltar* and the *Mediterranean*, which separates it from Europe; E. by the *Isthmus of Suez*, the *Red Sea*, and the *Indian Ocean*, by which it is separated from Asia; S. by the *Southern Ocean*; and W. by the *Atlantic*, which extends between Africa and America.

Africa forms an immense peninsula joined to Asia by the *Isthmus of Suez*, and extending from *Ras-al-Krun* in the N. to *Cape Agulhas* in the S., a distance of about 5000 miles; and from *Cape Guardafui* in the E. to *Cape Verd* in the W., nearly an equal distance. Its superficial extent is reckoned at 12,000,000 square miles.

Inland Seas and Gulfs.—The principal indentations of the coast of Africa are the *Gulfs of Sidra* and *Cabes* on the N. in the *Mediterranean*, the *Gulf of Guinea* in the W. in the *Atlantic*, and the *Arabian Gulf* or *Red Sea* on the N.E. in the *Indian Ocean*.

Capes.—The most prominent capes are Bon, Blanco, Ceuta, and Serrat on the N.; Blanco, Verde, Rouge,

Three Points, Lopez, and Negro on the W.; the Cape of Good Hope and Cape Agulhas on the S.; and Capes Delgado and Guardafui on the E.

General Features of the Surface, Mountains.—Africa appears to consist of a series of terraces gradually rising from the coast to the interior, forming extensive plains and elevated table-lands. The best known of its mountain systems are the range of *Mount Atlas* in the N.W., extending with its branches from lat. 27° to 32° N.; and attaining in some of its peaks an elevation of more than 12,000 feet. The mountains of *Kong* lie between Nigritia and N. Guinea, to the E. of which extend the *Komri*, or Mountains of the Moon, the existence and extreme elevation of which are inferred from the great rivers to which they give rise, although they have not been visited by Europeans; the mountains of *Lupata* in the S.E., those of *Madagascar* in the island of the same name, and the mountains of Abyssinia in the N.E.

Table-lands, Plains, &c.—The great characteristic feature of Africa is the *Sahara*, an immense desert region stretching across the N. portion of the continent, between the Atlantic and the Red Sea; composed of burning plains covered with shifting sands, or arid rocks, interspersed occasionally with fertile *oases*.

The *Sahara*, or *sea of sand*, covers nine-tenths of the whole plain. It is divided into two parts by a tract of stony country, by which it is traversed from N. to S., between 13° and 15° E. long., and which in parts offers some cultivable lands, while in others the stony surface is covered with sand. That part of the desert which extends between this tract and the Atlantic Ocean is called *Sahal*, and is almost entirely covered with a fine sand, which being agitated by strong easterly winds, appears like the surface of the sea, and often rises in the air in the form of sand-spouts. Low hills and wells occur in a few places; and water, in many parts, is only found at the depth of more than 100 feet. In that division of the desert which extends between the above-mentioned stony tract on the one side and

Nubia and Egypt on the other, the surface is covered rather with gravel than with sand, and in many places with a hard clay ; elevations and even ridges of low hills are here much more frequent, and consequently also wells. All the western part of the Sahara would, owing to its burning heat and the want of water, be totally impassable, were it not that it is here and there interspersed with verdant well-watered spots or *oases*, which appear like islands of the blest in the midst of desolation. These oases are mostly of very limited dimensions ; but some of them, particularly those on the E. side of the great desert, are very extensive : the country of Fezzan, for example, is in fact an oasis. They are usually surrounded by higher land, which serves to account for the springs, and consequently the verdure, for which they are so celebrated.

Rivers and Lakes.—The principal rivers of Africa are the *Nile*, an affluent of the Mediterranean, the *Senegal*, *Gambia*, *Niger* or *Joliba-Quorra*, the *Zaire*, and the *Orange*, which flow to the Atlantic, and the *Zambeze* and the *Jubb*, affluents of the Indian Ocean. The only known lakes of importance are *Lake Tchad* in the interior of Nigritia, *Lake Dembea*, or *Tzana*, in Abyssinia, and *Lake Loudieh* in Tunis, which appears to be connected with *Lake Melgig* in Algeria. Of *Lake Nyassi*, in lat. 8° S., long. 30° E., little is known except its great size.

Islands.—The islands of Africa consist of 14 principal groups, of which there are in the Atlantic Ocean the *Azores*, the *Madeira*, and *Canary* Islands ; the *Cape Verds*, the islands of the Gulf of Guinea, *St. Matthew*, *Ascension*, and *St. Helena*. In the Indian Ocean, the islands of *Socotra*, the *Seychelles*, *Zanguibar*, the *Comoro* Islands, *Madagascar*, and the *Mascarene* Islands.

Minerals.—The mineral riches of Africa are little known, but supposed to be very important. *Gold dust* is found in most of the rivers ; *diamonds* have been recently discovered in Algeria ; *salt* occurs in many parts of the continent and in the islands. *Iron*, *copper*, *silver*, *lead*,

and *tin* are also among its products, and indications of coal have been recently observed.

Climate, Natural Productions, &c.—Owing to the position of Africa, the greater part of it being within the torrid zone, and the great extent of its arid plains, its climate is excessive, and its temperature higher than that of any other continent. Africa presents the most striking contrasts in its vegetable productions; in the vicinity of arid deserts, there are countries covered with the richest verdure; wherever the land is sufficiently watered, as on the banks of rivers, and on the declivities of mountains, vegetation is characterized by the utmost vigour and magnificence.

Among its *vegetable products* are the *baobab*, one of the giants of the vegetable world; a species of teak or oak valuable for building; the cocoa-nut tree, the date, the palm, orange, citron, olive, the papyrus, and numerous dye-woods, the coffee-tree, sugar-cane, cotton, and indigo. The *fauna* of Africa is still very imperfectly known; it comprises the *chimpanzee*, a species of monkey which most resembles man; the elephant, hippopotamus, rhinoceros, zebra, giraffe, buffalo; the lion, leopard, panther, the wolf, fox, jackal, hyæna, antelopes, and bears. The chief domestic animals are the camel, horse, buffalo, ox, sheep, goats, and dogs. Among the birds of Africa may be noticed the ostrich, eagles, vultures, hawks, owls, cuckoos, and sun birds.

Inhabitants.—The inhabitants of Africa comprise many varieties of the human species; the most remarkable and best known of these are the *Hottentots* and *Caffres* in the S.; the *Negro* races on the S.W., and in the interior; the *Moors* on the N.; the *Caucasian* races in Abyssinia, and the *Copts* of Egypt. The population is uncertainly estimated at about 60,000,000.

Religion and Government, &c.—*Fétichism*, a degraded superstition, is

the religion of the greater number of the inhabitants, being professed by nearly all the negroes, and the natives of Madagascar. A corrupt form of the Christian religion is professed in Abyssinia and part of Egypt, and Mohammedanism prevails in all the other regions. Most forms of *government* may be found in Africa. *Despotism*, however, in its worst and most offensive shape, is by far the most prevalent. In some states there exists a sort of feudal aristocracy, and in others an aristocracy depending on the rude distinctions of superior strength and prowess in war. The *Arabic* is the learned language of the entire continent. The *Berber* is the vernacular idiom of the Barbary states; the *Sangoa* is used in Guinea; and the *Poul*, the *Iolof*, &c., bear the names of the people by whom they are spoken. The *Ambounda* is the language of all the tribes between the Congo and the coast of Mozambique.

NATIONAL DIVISIONS.

Africa is usually divided into the following countries:—

1. N., *Barbary*,—embracing four distinct territories, *Morocco*, *Algeria*, *Tunis*, *Tripoli*,—and *Egypt*.
2. E., *Nubia*, *Abyssinia*, *Adel*, *Zanguebar*, *Mozambique*, and *Sofala*.
3. S., The *Cape Colony*, *Port Natal*, *Caffraria*, and the *Hottentot Country*.
4. W., *Senegambia* and *Guinea*.
5. Central, *Nigritia* or *Soudan*.

THE EMPIRE OF MOROCCO.

Morocco, the largest of the Barbary States, embraces an area of 220,000 square miles (or a little larger than France), and has a population of 8,500,000. The surface is mountainous, being covered with ramifications of Mount Atlas, but comprises many fine plains and valleys.

The empire consists of the kingdoms of Morocco and Fez, and the territories Sus, Draha, and Tafillet; and is subdivided into 28 provinces. The principal cities and towns are Morocco, Fez, Mequinez, Rabat, Sallee, Tarudant, Titnan, Tesa, Mogadore, and Tangier, which, with other capitals of provinces, are governed by military prefects. The towns are chiefly inhabited by *Moors* and *Jews*; the

Berbers and *Shellooks* form the bulk of the agricultural population ; and the *Arabs* generally lead a wandering life on the plains, living in tents, and subsisting on the produce of their herds and flocks. Arts and sciences are at a low ebb ; though in most of the cities and towns there are Mohammedan colleges. The standing *army* amounts to about 11,000 men, half of whom are negroes. The *navy* comprises only a few brigs and smaller vessels.

ALGERIA.

Algeria, now a French possession, is situated between lat. 35° and 37° N. ; extending from long. $2^{\circ} 11'$ W. to $8^{\circ} 53'$ E. ; its length is about 550 miles, greatest breadth about 200. It contains a population of 2,594,000 natives, besides French troops, civilians, and other European settlers. The surface is traversed throughout by the Atlas Mountains, which rise in successive stages parallel with the coast, the highest points exceeding 7000 feet. The country is divided by the natives into the *Tel*, or country of grain crops, in the N., and the date country in the S.

Although the French have nominal possession of the whole territory, only a small portion of the inhabitants acknowledge their authority. Algeria is divided into the provinces of Algiers, Constantine, and Oran, and governed by a governor-general, whose authority is chiefly military.

The industry of the natives, which formerly consisted in weaving and the preparation of morocco leather, is, since the French domination, nearly confined to mining. Excellent coral and sponge is fished on the coasts. Public instruction is making rapid progress in the state. The *chief towns* are *Algiers*, Constantine, Philippeville, Bona, Setif, Blidah, Oran, and Ilemson.

TUNIS.

Tunis, to the eastward of Algeria, has an area roughly estimated at 72,000 square miles, and a population at between two and two and a half millions. The govern-

ment is exercised by an hereditary *Bey*, nominally subject to the Turkish sultan.

Besides *Tunis*, the capital, the chief towns are Susa, Hammamet, Bizerta, Sfax, Cabes, and Kairwan. The armed force amounts to 50,000 men ; the navy consists of a corvette, some smaller vessels, and about 32 gun-boats. The *imports* are raw silk, Spanish wool, sugar, coffee, timber, corn, and most manufactured goods. The *exports* are red caps, and other woollen goods, hides, fish, corn, fruit, live stock, olive oil, wax, and soap.

TRIPOLI.

Tripoli, the most easterly of the Barbary states, has an area of about 100,000 square miles, and a population of 600,000. The coast line, which presents few inlets, is of the most luxuriant fertility for a few miles inland, beyond which the whole country is little better than a sandy waste, the rivers of Tripoli being mere torrents. The *government* is exercised by a *pasha*, who is a vassal of the Porte.

Tripoli, the capital, is a fortified maritime city, on a low rocky promontory extending into the Mediterranean.

The Mohammedan religion prevails universally among the inhabitants of N. Africa, with the exception of the Jews and the various Europeans settled in Algeria and elsewhere.

EGYPT.

Boundaries and Extent.—Egypt is situated in the N.E. of Africa, and is bounded N. by the *Mediterranean*, E. by the *Isthmus of Suez* and the *Red Sea*, S. by *Nubia*, and W. by *Barbary* and the *Sahara*. Its length from N. to S. is 520 miles ; its breadth is undefined. The area is uncertain.

Natural Features, Climate, &c.—The territory of Egypt is composed of a long narrow valley, enclosed by a double

range of hills, which extend from Assouan to Cairo, and traversed by the *Nile*. North of Cairo, where the mountains terminate, the Nile separates into numerous branches, of which the two principal flow, the one N.E. and the other N.W., to the Mediterranean, enclosing a triangular space, having the sea for its base, and called the *Delta* from its resemblance to the Greek letter Δ. With the exception of the oases, the fertility of Egypt is confined to the valley inundated by the Nile, in the Delta, and a space of from 5 to 25 miles on the banks of the river, in Middle and Upper Egypt.

The soil is composed of successive deposits of earth brought down by the river, and enveloping the sands of the desert. The Nile regularly inundates its valley for several months in the year. This periodic inundation commences in June, and attains its maximum height in September. After having remained stationary for several days, the waters subside, and disappear at the end of November. The distribution of the water is favoured by the slightly convex form of the central valley of the Nile, and is assisted by lateral canals. On the left or W. side of the river, the chief of these is the *canal of Joseph*, which feeds the ancient lake Mæris, at the bottom of the fertile valley of Fayoum. As a potable water, that of the Nile is reckoned the best in the world.

Egypt has no metals, and the only minerals are natron, saltpetre, salt, marble, and the celebrated red granite called *Syene marble*, employed in the construction of the pyramids, and in many of the monuments in Italy; the principal quarries are situated in the mountains of Upper Egypt. Egypt has always been considered one of the most fertile countries in the world. The chief cultivated plants are cotton, lint, hemp, indigo, sugar, tobacco, opium; the principal grains are *durrah*, millet, maize, wheat, and rice.

Climate.—The climate of Egypt is characterized by extreme dryness. There are but two seasons, the temperate, which lasts from October to March, and the hot season, from March to September. The heat during the day is excessive in summer, owing to the confined position of the country, and the lowness of its surface. In winter the weather is mild and pleasant. Upper and Middle Egypt are more healthy than the Delta. On the subsiding of the inunda-

tion, fevers, dysentery, and ophthalmia prevail over the whole country. During the spring equinox, the country is visited by the pestilential wind called the *Simoom* or *Khamsin*, a hot S.S.W. wind of 50 days' duration. The *mirage* occurs on the extensive plains after the surface has been heated by the sun, on which occasion the country appears like a vast lake studded with islands. Rain is unknown in Upper Egypt; in the Delta it falls frequently from November to March.

Inhabitants.—The population of Egypt is estimated at 2,895,000: seven-eighths of these are of Arabic descent, and the remainder embrace Copts, Turks, Syrians, Greeks, Armenians, Jews, and Europeans of various nations.

Industrial Pursuits.—Egypt is strictly an *agricultural* country, and the great majority of the Egyptian Arabs are engaged as *fellahs* or husbandmen. Agricultural operations are carried on in the rudest manner, but a large surplus of corn is raised in ordinary years. The rearing of fowls, pigeons, and bees, is an important branch of industry among the peasants, who hatch eggs by means of artificial heat. The *manufactures* are almost entirely monopolized by the government. There are large dyeing and printing works at *Cairo*; woollen cloths for military clothing are manufactured at *Boulac*, where there is an extensive iron-foundry. Carpets are made at *Benisouef*, red caps at *Foulah*, and fire-arms and military accoutrements at *Cairo*.

Since the establishment of regular steam-packets in the Mediterranean and the Indian Ocean, Egypt has become the route to India for all the correspondence of Europe, as well as for the greater portion of travellers. The principal means of communication at present are the Nile, which is traversed by steam-packets, and the canals. The route from *Cairo* to *Suez* (180 miles) is traversed by horses and vans, and the mail is conveyed in 18 hours. It is intended to connect *Cairo* and *Suez* by means of a railway.

Government, Religion, &c.—The government of Egypt is an hereditary pashalick among the descendants of Mehemet Ali. The majority of the people are Mohammedans, but the Copts are Christians. Mehemet Ali established schools of medicine, languages, and agriculture, and military and naval schools. The Egyptian *army*, also created by Mehemet Ali, is raised by conscription, and consisted in 1841 of 148,000 regular troops, and 146,000 irregular troops, and labourers in the arsenal. The *fleet* consists of 7 line-of-

battle ships, 6 frigates, 4 corvettes, 7 brigs, 2 steam-packets, and 23 transports.

NATIONAL DIVISIONS.—Egypt embraces three divisions, called the *Lower*, *Middle*, and *Upper*.

	Towns.		
Lower Egypt	.	.	<i>Alexandria.</i>
Middle Egypt	.	.	CAIRO, or Grand Cairo.
Upper Egypt	.	.	<i>Siout.</i>

The largest *pyramids* are near *Gizch*, 7 miles S.W. of Cairo, but others occur at intervals on and near the left bank of the Nile, over a space of 70 miles. The greatest temples and sculptures are found on the site of *Thebes*, and at Edfou, Denderah, &c.

NUBIA.

Boundaries and Extent.—Nubia extends southward from Egypt to about the 11th degree of latitude, where it borders on *Abyssinia*: on the E. it is bounded by the *Red Sea*, and on the W. by the *Libyan deserts*.

Natural Features, Climate, &c.—Nubia is situated almost entirely in the valley of the Nile, which is here so narrow as to leave no space for cultivation on its banks; and the productive districts occur in the gorges between the mountains, and on the islands. A desert of sand and rocks, with some small fertile oases, extends E. from Lower Nubia to the Red Sea. In Upper Nubia the country is more varied; the Nile here receives its affluent the *Atbara*. The regions of Shendy, Halfay, and Sennaar, contain vast fertile plains. The *climate* is extremely hot and dry, but on the whole healthy.

Agriculture employs most of the population on the banks of the Nile and its tributaries, and artificial irrigation is resorted to as in Egypt. The chief *products* are *durrah*, barley, cotton, indigo,

tobacco, senna, coffee, dates. The Nubians belong to Arabian and Ethiopian races ; the pastoral tribes speak the Arabic language. Most of the people are Mohammedans in religion. Nubia is under the dominion of Egypt.

The *chief town* is *Khartoum* ; the only sea-port is Souakin.

ABYSSINIA.

Boundaries and Extent.—Abyssinia lies to the S.E. of *Nubia*, and is bounded E. by *Adel*, N.E. by the *Red Sea*, and S. and S.E. by the country of the *Gallas*.

Natural Features, Climate, &c.—Abyssinia forms an elevated table-land, and contains many fertile valleys watered by numerous river courses. Many of its rivers are lost in the sands, or only reach the sea during the rainy season. Lake *Dembea* or *Tzana* is the largest in the country. The highest mountain range is in the S.W. table-land, where the peak of *Abba Yaret* attains a height of 15,000 feet, and the mountain of *Buahat* 14,364 feet ; the upper part of these mountains is covered with snow, and their sides are clothed with trees and fine grass. The *temperature* of Abyssinia is much lower than that of Nubia or Egypt, owing to the elevation of the soil, the numerous rivers, and the abundant rains.

The *mineral products* of the country are iron-ore, rock-salt, and a small quantity of gold. The cultivated grains are wheat, barley, oats, maize, rice, and millet. In *industry* and *commerce* the Abyssinians have made some progress ; they manufacture tanned-skins for tents, agricultural implements, coarse cotton and woollen cloths, and pottery ware.

NATIONAL DIVISIONS, TOWNS.—Abyssinia was formerly a powerful kingdom, but for more than a century the princes of the ancient dynasty have been deprived of their

authority, and the empire has been divided into several petty states, the chief of which are *Shoa*, *Tigré*, and *Amhara*. *Ankobar* is the capital of the kingdom of *Shoa*; the other towns are *Massouah* and *Gondar*.

To the S. of Abyssinia are several semi-barbarous and little known countries, in many of which the *Gallas* are the ruling people.

THE SAHARA, OR DESERT.

The general features of this vast desert have been already described. The only valuable produce of the desert is *salt*, large rocks of which occur in the W. Palm trees grow on the borders of the Sahara, and the chief products of its oases are dates and gums.

In the middle of this region, to the S. of Tripoli, is the large territory of *Fezzan*, which is said to contain 101 towns and villages, or inhabited oases. It is chiefly inhabited by *Tuareicks*, *Arabs*, *Moors*, and *Negroes*. The chief, who is subject to the Ottoman Porte, takes the title of *sultan*, and resides at *Mourzouk*, the capital.

CENTRAL AFRICA.

Boundaries and Extent.—Central Africa embraces the basins of the River Quorra and Lake Tchad, and is bounded E. by *Kordofan*, S. by the parallel of *lat. 6° N.*, W. by *Senegambia*, and N. by the desert of *Sahara*. From the imperfect accounts of travellers, the greater part of the surface appears to be flat, except in the S., where it is said to be hilly.

The whole of the above territory is included within the region of *Nigritia* or *Soudan*, and derives its name from its being the native seat of the black or negro variety of the human race.

Inhabitants.—The population is divided between people of pure

negro blood, and the *Foulahs* (or *Fellatahs*), who seem to be a mixed race.

The genuine negro races are all in a very low state of civilization. Agriculture is practised, though in the rudest manner. Rice and other grains, with numerous fruits, are produced. Nigritia furnishes gold, ivory, ostrich feathers, and *slates*.

Some of the negro tribes are Mohammedans, but the greater number are idolaters.

NATIONAL DIVISIONS, TOWNS.—Among the numerous states of Nigritia the chief are the kingdoms of *Bambarra*, *Jenneh*, and *Timbuctoo*, along the upper course of the Niger; *Bourgou*, *Yaouri*, *Rabba*, and *Nifi* on the middle portion of that river; *Houssa*, *Kashna*, *Kano*, and *Mandara*, further to the E.; *Bornou*, *Loggun*, *Beghermeh*, and *Kanem*, near the shores of Lake Tchad. The more E. portion contains *Dar Saley*, with *Darfour*, and other little known territories which adjoin the basin of the Upper Nile.

The most important towns are, *Sego*, *Jenneh*, *Timbuctoo*, *Bousa*, *Saccatoo*, *New Bornou*, *Yola*, *Warra*, &c.

WESTERN AFRICA.

Extent, Natural Features, Climate, &c.—Under the general name of Western Africa are comprehended the Atlantic coasts, between the 18th parallels of N. and S. latitude,—a vast extent of territory, bounded on the one side by the Ocean, and on the other by high mountain chains which divide it from the elevated regions of the interior. The coast is generally flat, but in some cases, as at Sierra Leone and elsewhere, the mountains approach nearer the coast, and send bold promontories into the sea. The mouths of many rivers occur along the coast. Among these are the *Senegal*, *Gambia*, and *Quorra* to the N., and the *Congo* and *Coanza* to the S. of the equator.

The *climate* is generally considered the most unhealthy for European constitutions of any on the globe.

Inhabitants.—The population of W. Africa is almost wholly negro, mixed with a few settlers of different European nations.

NATIONAL DIVISIONS, TOWNS, &c.—The coasts of W. Africa, to the N. of the equator, are divided into *Senegambia* (or the country watered by the Senegal and the Gambia), and *Guinea*, which lies along the gulf of the same name.

SENEGAMBIA is mountainous in the interior, but the coast-lands are low and level. In natural products it is one of the richest regions known; but its heat is intense, and the climate notoriously unhealthy for Europeans. The *inhabitants* are mostly negroes, intermixed with Arabs and other Mohammedan tribes. The *English* possess here the settlements of *Sierra Leone* and *Gambia*; the *French* have numerous *forts* along the course of the *Senegal* river, the chief of which are *St. Louis* and *Goree*; and the Portuguese have some small establishments at *Cacheo*, and on the *Jeba*.

The capital of the *Sierra Leone* settlement is *Freetown*. The *Isles de Los*, 60 miles N. of *Sierra Leone*, belong to Great Britain. Some small settlements on the river *Gambia* constitute a distinct British colony. These consist of *Bathurst*, *Fort James*, and *Macarthy's Island*.

LIBERIA, an independent negro republic founded by the United States in 1823, extends along the coast of Guinea, between *Sierra Leone* and *Cape Mesurado*, for 320 miles, with an average breadth of 80 miles. The population is estimated at 250,000, all negroes. On the whole the establishment of *Liberia* is a most successful experiment for the civilization of W. Africa. The *government* is vested in a president, vice-president, and a senate of 6 members, and a house of representatives of 28 members. The sea-port and capital *Monrovia* has a population of 9000.

GUINEA was formerly divided by Europeans into the *Grain Coast*, the *Ivory Coast*, the *Gold Coast*, and the *Slave Coast*. *Upper Guinea* contains numerous native states, the chief of which are the kingdoms of *Ashantee*, *Dahomey*, and *Benin*. *Lower Guinea* comprises the states of *Loango*, *Congo*, *Angola*, and *Benguela*, all inhabited by various negro races sunk in the lowest state of degradation and barbarism. *Towns*: *Loango*, *Malemba*, *S. Paul de Loando*, *S. Salvador*.

The *principal towns* are *Coomassie*, the capital of *Ashantee*; *Abomey*, the capital of *Dahomey*, *St. Andrew's*, *Grand Lahou*, and *Grand Bassam*, &c.

The **BRITISH POSSESSIONS** on the coast of Guinea are limited to a

few forts on the *Gold Coast*. The most important are *Cape Coast Castle*, a well built and strong fortress, forts *Discove* and *Apollonia*, *Anamaboe*, *James Fort* and *Christianborg* (both at Accra).

Numerous missionary stations are maintained by the English Church on the W. coast of Africa, comprised under the diocese of Sierra Leone.

The DUTCH SETTLEMENTS are the fortress of *El-Mina*, with *Azim* and a small factory at Accra.

EASTERN AFRICA.

Extent, Natural Features, &c.—The region comprehended under the general name of E. Africa extends from the *Gulf of Aden* in the N. to the shores of *Delagoa Bay* on the S. Its general features and climate have been already described (pp. 163—167).

Inhabitants.—The negro nations of E. Africa are sunk in a state of ignorance and barbarism. The coasts to the N. of the equator are occupied by the *Somauli*, a people of mild and pastoral habits. The coast of *Ajan* contains some rich and fertile valleys, alternating with open grassy plains. The *Zanguebar* coast is subject to the sultan of Muscat. The principal towns are *Magadoxo*, *Brava*, *Jubb*, *Mombas*, *Zanzibar*, and *Quiloa*.

The coast to the S. of Cape Delgado embraces the territory of *Mozambique*. The town of *Mozambique* is a Portuguese settlement. *Quillimane* is a great mart for slaves. *Sofala* possesses some trade.

SOUTH AFRICA.

S. Africa embraces the colonies of the *Cape of Good Hope* and *Port Natal*, both belonging to Great Britain, with the large territory of *Caffraria*, of which the greater part is in the possession of independent tribes.

The CAPE COLONY occupies the S. part of the peninsula of Africa, and is bounded S. and E. by the *Indian*, and W. by the *Atlantic Ocean*, N. by the countries of the

Namaquas, Griquas, and other Hottentot tribes, and N.E. by British Caffraria. Its length from W. to E. is 550 miles; average breadth, 250. The area is estimated at 110,000 square miles. The population was (in 1845) 179,000, mostly Africans, Dutch, negroes, and a few Hottentots.

Natural Features, Climate, &c.—The country is formed of a series of terraces, rising in successive stages from S. to N. The chief mountain chains are the *Drakensteen*, *Zwellendam*, *Zwartenberg*, and *Sneeuw-Bergen*, in which last is the *Spitzkop* or *Compass-berg*, the culminating point of the whole, estimated at 10,250 feet in elevation. *Table* mountain at the S.W. extremity of the colony rises to the height of 3582 feet.

The most extensive plain is the *Great Karoo*, an arid tract upwards of 200 miles in length, 50 in breadth, between *Zwartveld* and the *Nieuwveld* mountains. The only passage from one terrace to another is through the *Kloofs*, narrow and difficult mountain gorges; some of these have been made passable for wheeled carriages, but the roads in general are very bad.

The principal bays are (from W. to E.) *St. Helena*, *Table*, *False* (the W. part of which forms *Simon's Bay*), *St. Sebastian*, *Mossel*, *Plettenberg*, and *Algoa*. Streams are numerous, but rapid, and mostly dry in summer and unfit for navigation.

The chief are, on the E. and S. coast, *Keiskamma*, *Great Fish*, *Bushman*, *Sunday*, *Camtoos* and *Breede*; on the W., *Berg* and *Elephant*, or *Oliphant*; and on the N. several small streams tributary to the *Orange*.

The climate is mild and healthy, but very dry; the rains are irregular, often falling in torrents on the coast, but rarely in the plains of the interior. The soil is fertile where sufficiently watered, but the general appearance of the country is sterile and monotonous. The most valuable production is the *aloe*.

Cattle rearing is the chief branch of rural industry. The commerce of the colony is extensive. The ports are *Cape Town* and *Simon's Town* in the W., and *Fort Elizabeth* in the E.

The colony consists of an E. and a W. province, and these are divided into 14 districts. The chief towns are *CAPE TOWN* (the capital), *Simon's Town*, *Port Beaufort*, *Graham's Town*, *Fort Elizabeth*, and, in *British Caffraria*, *King William's Town*.

The tract of country called the *Orange River Sovereignty*, on the N.E. frontier of Cape Colony, is nominally subject to Great Britain.

Government, Religion, &c.—The government is vested in a legislative council consisting of five official members, and five unofficial members. The English Church is under the government of the Bishop of Cape Town.

The *boers*, or farmers of the Cape Colony, are descendants of the original Dutch settlers.

PORT NATAL.

The colony of Port Natal lies between the parallels of $27^{\circ} 40'$ and 31° S. lat., and stretches from the shores of the Indian Ocean to a distance of 100 miles inland,—including an area of about 18,000 square miles.

The surface is undulating, well watered, and mostly covered with tall grass. The *climate* is most healthy, and the soil is far more fertile than that in Cape Colony. Cotton and indigo grow wild; sugar, coffee, wheat, oats, beans, and tobacco, are important crops. The territory, which is a dependency of the Cape of Good Hope, is administered by a lieutenant-governor. *Pietermaritzberg*, the capital, is 50 miles inland from Port Natal, which is near the centre of the coast line.

CAFFRARIA is an extensive region comprising the space between lat. 32° and 34° S., and long. $27^{\circ} 30'$ and $29^{\circ} 30'$ E., bounded E. and S. by the *Indian Ocean*, S.W. and W. by the *Keiskama*, the *Chumie*, and the *Klis Plaat* rivers, and N., indefinitely, by a chain of mountains in a direction from E. to W. The S.E. portion of the country, (called by the natives *Amakosa*, and inhabited by the *Kosas*, or Kaffirs proper,) is watered by numerous streams, the chief of which are the Great Kei, Somerset, Buffalo, and Keiskama, all of which rise in the mountainous country in the interior, and flow S.E. to the Indian Ocean. Beyond these mountains on the N., is the country of the *Amatembu* Kaffirs, or *Tambookies*, the rivers of which are chiefly affluents of the Great Kei.

ISLANDS OF AFRICA.

Madeira, off the N.W. coast, contains an area of about 300 square miles. Population, 112,000. The capital

Funchal is on the S. side of the island. Madeira belongs to Portugal.

The *Canary Islands*, on the W. coast of N. Africa, belong to Spain, and consist of 7 principal islands,—Teneriffe, Canary, Palma, Lanzarote, Fuerteventura, Gomera, Hierro. Area of the whole about 4000 square miles; population about 233,000. The capital of the whole Archipelago is *Santa-Cruz*, in Teneriffe. *Las Palmas* in Canary is also a considerable commercial port.

The *Cape Verd Islands*, off the coast of Senegambia, belong to Portugal. The Archipelago consists of the following 10 islands:—Santiago, Fogo, Brava, Mayo, Boavista, Sal, St. Nicolão, St. Lucia, St. Vincent, and St. Antonio. Area about 1680 square miles. Population, 67,000. Chief towns:—*Mindello*, in St. Vincent; *Porto Prayo*, in Santiago.

Fernando Po, *Prince's Island*, and *St. Thomas*, in the Gulf of Guinea, belong to Portugal; *Annabon* to Spain.

Ascension belongs to Great Britain. Its *chief town*, *George Town*, has a fort and military quarters. Area about 35 square miles. Population (nearly all military) about 400.

St. Helena, belonging to Great Britain (and chiefly notable as the place of exile of Napoleon Buonaparte), has an area of 30,300 acres, and a population of about 5000. It is of volcanic origin, and consists of rugged mountains interspersed with numerous ravines. Its centre is a tableland, with an elevation of 1500 feet. Chief town and port, *James Town*.

Madagascar, off the E. coast, measures about 1000 miles in length, from Cape Amber at the N. to Cape St. Mary at the S. Its average breadth is 300 miles. Population about 4,700,000. Chief towns, *Tananarivo*, *Tamatave*. The people of Madagascar (called the *Malagasy*) are heathens; various ineffectual attempts have been made

to convert them to Christianity. They have an independent native government.

Bourbon, E. of Madagascar, a French colony. Greatest length, 40 miles; greatest breadth, 27 miles. Area nearly 900 square miles. Population, 108,000. Capital, *St. Denis*, on the N. coast.

Mauritius (or Isle of France), belonging to Great Britain. Length, 36 miles; breadth, 20 miles. Area nearly 500,000 acres. Population, 161,000. Chief town, *Port Louis*. The Mauritius has numerous small dependencies; the chief of these are the *Sechelles* islands, the *Amiranté* islands, and the small island of *Rodriguez*.

Other less important islands off the African coast are the *Comoro* Islands, in the Mozambique Channel, and *Socotra*, near the Gulf of Aden.

AMERICA.

PHYSICAL GEOGRAPHY.

Extent and Boundaries.—America is one of the great divisions of the globe, surpassing in magnitude all others except Asia. Including Greenland, it extends through 135° of lat. and 145° of long.—namely, from about 80° N. to 55° S., and long. 20° to 165° W. It is separated by the *Atlantic* Ocean from Europe and Africa, and by the *Pacific* from Asia and Australia. Its area, with its islands, has been variously estimated at from 14 to 15 millions of square miles; but its extreme northern limits are yet imperfectly known. It is divided N. of the equator, by the *Gulf of Mexico* and the *Caribbean Sea*, into two continents nearly equal in extent; connected by a

comparatively narrow region termed Central America, the S. extremity of which (the *Isthmus of Darien* or *Panama*) is only 28 miles across.

General Features.—N. America resembles the other northern continents of Europe and Asia in being deeply indented by bays and gulfs, in having extensive inland seas, and in most of its northern portion being a level region abounding in lakes, while S. America resembles Africa and Australia in general outline; like them its coasts are little broken by extensive inlets, and its lakes are comparatively small. The physical features of both the grand divisions of this continent are on the most stupendous scale. America boasts of the two largest rivers in the world, the *Amazon* in the S., and the *Mississippi* in the N.; and in the latter division its lakes form the largest collection of fresh water on the surface of the globe.

Inland Seas, Gulfs, and Straits.—The principal inlets on the E. coast of N. America are *Hudson* and *James' Bays*, the *Gulf of St. Laurence*, the Bays of *Fundy*, *Chesapeake*, and *Delaware*; on its S. the *Gulf of Mexico*; on its W. the Gulfs of *California* and *Georgia*, *Cook Inlet*, *Bristol Bay*, and *Norton* and *Kotzebue Sounds*. On the N. the *Arctic Ocean* separates it from *Melville* and *Bathurst Islands*, *Victoria Land*, *Boothia*, &c. *Baffin Bay* and *Davis' Strait* divide *Cockburn Land* from *Greenland*.

In S. America the principal inlets are the *Gulfs of St. George* and *St. Matthias* in *Patagonia*; and in *Colombia* the *Gulf of Guayaquil* and the *Lake of Maracaybo*, united by a strait to the *Caribbean Sea*. *Lake Titicaca* is the only inland lake of consequence; it is much inferior in size to *Lake Nicaragua* in Central America.

Capes, Peninsulas, &c.—The chief peninsulas of N. America are *Labrador*, *Nova Scotia*, *Florida*, and *Old California*. The principal headlands upon the N. coasts are *Capes Lisburne*, *Icy*, *Barrow*, *Bathurst*, and *Rennel*. On

the E. side of America are *Capes Farewell, Walsingham, Charles, Cod, Hatteras, Sable, Catoche, and Gracias-à-Dios*. In the S. half of the continent are *Point Gallinas, Capes St. Roque, Branco, Frio, and Corrientes*. In the S. are *Cape Froward* on the mainland, and *Cape Horn* in Terra del Fuego. On the W. coasts are *Capes Parina, Blanco, and San Francisco*,—in S. America; *Cape St. Lucas, Cape Mendocino, and Cape Prince of Wales* in N. America; besides many others of less importance.

Mountains and Plateaux of N. America.—In N. America the principal mountain system is that of the *Mexican Alps* and *Rocky Mountains*, which may be regarded as a continuation of the Andes. In Mexico it is divided into three distinct ridges; within which, between the parallels of 19° and 24° N. lat., are immense plateaux elevated to the height of between 6000 and 9000 feet.

The highest peaks in the ridge in Mexico are the volcanoes of *Pocatepetl*, 17,720 feet, and *Orizaba*, 17,374 feet high. From about the 38th degree, the ridge which then begins to be called the *Rocky Mountains* stretches N. till it terminates near the mouth of the Mackenzie River, on the Arctic Sea. Some peaks in this chain are said to be 16,000 feet above the level of the sea.

Parallel to the Rocky Mountains, and at no great distance from the sea, a chain of mountains runs N. from the peninsula of California, till it is lost in Russian America. This chain, which has been called the *Californian Maritime Alps*¹, increases in altitude as it gets further N. *Mount Hood*, on the S. side of the Colombia River, is said to be 15,500 feet high, and *Mount St. Helens*, on the N. side of the river, has an elevation of 14,000 feet. *Mount Fairweather* is also 14,900 feet high, and *Mount St. Elias*, the highest in the chain, attains an elevation of 16,860 feet. Between the Rocky Mountains and the Maritime Alps is

¹ By Humboldt.

an extensive *prairie* tract, 700 miles in length, by from 100 to 200 in breadth.

The mountains E. of the Mississippi do not at all approach the Rocky Mountains in magnitude. They are included in what is called the *Alleghany* or *Appalachian* system, extending in a N.E. by N. direction from Alabama, on the N. confines of Georgia, to the banks of the St. Laurence, being about 1200 miles in length, with a mean breadth of about 100 miles.

The *White Mountains* of New Hampshire, 7300 feet above the level of the sea, are the highest in this range. The immense valley of the Mississippi lies between the Rocky and Alleghany mountains.

The system of the *Antilles* embraces the mountains in the archipelago of that name. Its culminating points are *Anton-Sepo*, in Hayti, nearly 9000 feet in height; and the *Sierra de Cobre*, in Cuba.

Besides these great mountain systems, N. America contains the elevated regions of the *Ozark Mountains*, the *plateau* of *Labrador*, the *Arctic Highlands*, and the high plateaux of the *Mexican Isthmus*, of which the *plateau* of *Anahuac* is 6000 to 9000 feet above the level of the sea.

Plains.—In no part of the world are the plains so vast. The immense space from the outlet of the Mackenzie River to the Delta of the Mississippi, and between the central chain of the Mexican system and Rocky Mountains, and the Alleghany, forms the largest plain, not of America only, but of the world; it embraces the basins of the Mississippi, the St. Laurence, Churchill or Nelson, almost the whole basin of the Missouri, nearly the whole basin of the Suskatchewan and Mackenzie River, and the entire basin of the Coppermine River. Four-fifths of that portion of this vast plain, which lies beyond the 50th degree of lat., is a bleak and barren waste overspread

with innumerable lakes, and bearing a striking resemblance to N. Asia, but its more southerly portion, or that lying W. of the Alleghany chain, and N. from the Gulf of Mexico, differs widely in character from the other, being well wooded and fertile on the E. side, bare but not unfertile in the middle, and becoming almost a desert in the extreme W.

Rivers.—The principal rivers of N. America are the *Mississippi, Missouri, Ohio, St. Laurence, Nelson, Mackenzie, Coppermine, Connecticut, Hudson, Delaware, Susquehanna, Potomac, James, Roanoke, Pedee, Santee, Savannah, Alahatamah, Apalachicola, and Mobile.*

The principal rivers flowing into the Pacific, on the W. coast of N. America, are the *Fraser, Oregon, or Columbia, Sacramento, and Colorado.*

The *Mississippi*, taken in connexion with the *Missouri*, the largest and most important stream, flows from N. to S., falling into the Gulf of Mexico about 100 miles below New Orleans. Its course, including windings, exceeds 4200 miles; many of its tributaries, as the *Arkansas, Red River, Ohio, &c.*, are of great magnitude; and it drains one of the largest and finest basins in the world. It is navigable for about 1700 miles in a direct line from its mouth, and is a well frequented channel of communication.

The *St. Laurence*, with its connected lakes, or rather great inland seas, is the grand outlet of the largest freshwater system in the world.

The W. coast only receives two large rivers, and those not of the first class, the *Rio Colorado*, flowing into the Gulf of California, and the *Columbia*, or the *Oregon*. Their course may be estimated at 1100 miles each.

The *Mackenzie* is the only great river flowing into the Arctic Sea. It has a N.N.W. course; and is connected by a series of lakes and tributary streams with Lake Superior, and consequently with the *St. Laurence*.

Mountains and Plateaux of South America.—Of these systems that of the *Andes* is the most gigantic. This vast chain of mountains commences at Cape Horn, in about the

56th degree of S. lat., and following pretty closely the line of the W. coast of the continent, to which it forms as it were a huge bulwark, stretches N. to the Bay of Panama, in about the 9th degree of N. lat. But in Popayan, in about 2° 30' N. lat., the chain is divided into three great ridges, of which the most westerly takes the direction above mentioned, while that furthest to the E. follows a N.E. direction, terminating a little to the E. of Lake Matacaybo. The name *Cordillera*, sometimes given to the entire chain, belongs properly only to the highest ridge. In parts the chain consists of only one ridge, and in others of two or three, enclosing very extensive Alpine valleys, many thousand feet above the level of the sea. Next to the Himalaya, the Andes has the highest elevation of any mountain system; its mean height may be taken at from 10,000 to 12,000 feet. *Chimborazo*, near Quito, is 21,424 feet above the sea; and *Aconcagua*, in the Chilean Andes, rises to above 23,000 feet.

The system of *La Parime*, or *Guyana*, embraces the mountains scattered over the immense island formed by the Orinoco, Cassiquiari, Rio Negro, and Amazon. It consists of an irregular group of mountains, separated from each other by plains, savannahs, and immense forests. The *Sierra de Parime* may be regarded as its principal chain. The peak of *Duida*, 8280 feet in height, is the culminating point of the chain and of the whole system.

The *Brazilian* system embraces the mountains that lie between the Amazon, Paraguay, and Rio de la Plata. The *Sierra de Espinhazo* is its most elevated chain. It traverses, under different denominations, the provinces of Bahia, Minas-Geraës, San Paulo, and the N. extremity of the province of San Pedro. Its culminating points are *Itambe* and the *Sierra da Piedade*, nearly 6000 feet in height, in the province Minas-Geraës.

America has a great variety of plateaux, some re-

markable for their prodigious elevation, and others for their immense extent. Under the former are included the *plateau* of *Titicaca*, divided between Bolivia and Peru, comprising an area of about 18,000 square miles, with an elevation of about 13,000 feet. The populous and well cultivated *plateau* of *Quito* is elevated about 9600 feet ; and the extensive central *plateau* of *S. America* embraces the vast province of Matto Grosso, with parts of Goyaz and San Paulo, in Brazil, the whole of Paraguay, Chaco in the confederation of the Rio de la Plata, and a part of the land of Chiquitos and Moxos in Bolivia. Its elevation varies from 750 to 1280 feet.

Plains.—The *plain* of the *Amazon* embraces the whole central part of S. America, comprising more than half Brazil, with S.W. Colombia, the E. part of Peru, and the N. part of Bolivia ; its limits are nearly identical with those of the middle and lower parts of the immense basin of the Amazon and Tocantin.

The *plain* of the *Rio de la Plata* extends between the Andes and their principal branches and the mountains of Brazil, to the Atlantic Ocean and the Straits of Magellan. It embraces the S.W. part of Brazil, Paraguay, the country of the Chiquitos, Chaco, with the greater part of the confederation of the Rio de la Plata, the state of Uruguay, and Patagonia. A large portion of it is known by the name of the *Pampas* of Buenos Ayres, or Rio de la Plata.

The *plain* of the *Orinoco*, embracing the *Llanos* of New Granada and Venezuela in Colombia, extends from Caqueta to the mouth of the Orinoco, along the Guaviare, Meta, and Lower Orinoco.

In some of the flat parts of America large tracts of territory are met with, which, in respect of aridity of soil and of the sand by which they are covered, may be compared to the deserts of Asia and Africa. The most remarkable and most extensive of these tracts are the *Desert* of *Pernambuco*, occupying a great part of the N.E.

plateau of Brazil ; the *Desert of Atacama*, extending with some interruptions along the coast of the Pacific from Tarapaca in Peru to Copiapo in Chili ; and the *Desert of Nuttal*, at the E. foot of the Rocky Mountains, between the Upper Arkansas and Paduka, forming part of the central plain of N. America.

Rivers.—The three principal rivers of S. America are the *Amazon*, the *Orinoco*, and the *La Plata*.

The *Amazon* flows E. through the broadest part of S. America, having its *embouchure* under the equator. Its entire course is estimated at about 4700 miles. Uninterrupted by either rocks or shallows, it is navigable for vessels of considerable burden to the E. foot of the Andes, a distance, in a direct line, of above 2000 miles from the sea.

The *Orinoco* has a course of about 1800 miles. There is a water communication between one of its affluents, the Cassiquiari, and the Rio Negro, an affluent of the Amazon.

The *La Plata*, which runs S. with a slight inclination to the E., is the grand channel of communication to a large portion of S. America. Its course may be estimated at about 2500 miles.

The other rivers of S. America are the *Magdalena*, flowing into the Caribbean Sea, and the *Atrato* into the Gulf of Darien.

Rivers flowing into the Atlantic: the Essequibo, Demerara, Berbice, Corentyn, Surinam, and Maroni. The Maranhao, Parnanahyba, San Francisco, Grande do Belmonte, and many others, belong to the Atlantic coast to the E. and S. of the Amazon.

Islands of America.—The principal islands of America will be noticed in the order of the seas in which they are situated.

In the Atlantic Ocean are the *Archipelago of St. Laurence*, or of *Newfoundland*, containing *Newfoundland*, *Anticosti*, *Prince Edward's Island*, and *Cape Breton*.

The ANTILLES, commonly called the WEST INDIES, comprises a great number of islands and secondary groups, lying between the peninsula of Florida and the Delta of the Orinoco. Its chief islands are *Cuba*, *Hayti* or *St. Domingo*, *Jamaica*, and *Porto Rico*, called the GREATER

ANTILLES ; *St. Cruz, Antigua, Guadaloupe, Martinique, St. Lucia, Barbadoes, St. Vincent, Tobago, Trinidad*, and several others, called the **LESSER ANTILLES**.

The *Lucayos, or Bahama Islands*, a vast secondary group, are situated to the N. of Cuba. Towards the S. extremity of the continent are the *Falkland Islands* ; in the S. Ocean is the archipelago of *Magellan* and *Terra del Fuego*, the most southerly inhabited part of the world.

The *Antarctic Archipelago*, under which denomination are included all the islands situated beyond 56° S. lat., have for the most part been recently discovered ; they are all uninhabited, are mostly covered with ice, and important only to whale and seal fishers. The most remarkable islands and groups are *South Georgia* ; the Archipelago of *Sandwich*, the *Orkneys, S. Shetland, Trinity Island*, the small islands of *Alexander I. and Peter I.* ; being at present the most southerly of the known parts of the globe.

The Pacific Ocean has also a multitude of islands, lying in groups as follow : the archipelago of *Madre de Dios* on the W. coast of *Patagonia* ; the archipelago of *Chiloe*, to the S. of *Chili* ; the archipelago of *Gallopagos* ; the archipelago of *Quadra and Vancouver*, and that of *King George III.*, on the N.W. coast of N. America, with the *Aleutian archipelago* in *Russian America*. In *Behring's Sea* are the group of *Pribylof and Nounivok*, belonging to *Russia*.

The Arctic Ocean presents a vast number of islands, the majority of which, previously to the late voyage of discovery, were regarded as parts of the American continent. They may be subdivided into, E. or *Danish Arctic lands*, comprising the great group of *Greenland and Iceland*, belonging to *Denmark* and *Jan Mayen's Island* ; the W. or *English Arctic lands*, extending to the W. and N. of *Baffin's* and *Hudson's Bays*, the principal groups of which are *N. Devon, N. Georgia*, with the islands *Cornwallis, Melville, &c.* ; and the archipelago of *Baffin*, including *Parry, Cockburn, Southampton, New Galloway, &c.*

Minerals.—The mineral riches of America are probably superior to those of any other of the great divisions of the globe. Besides *gold* and *silver*, most other metals are found in less or greater abundance in America. *Chili* and

Cuba have some of the richest *copper* mines in the world; *lead* is found in the greatest plenty in different parts of the U. States. *Iron* is extremely abundant in the U. States, and in many other parts of the continent; *salt* also is very widely diffused; and *coal* is found in vast and all but inexhaustible deposits in different parts of the U. States, in British America, and in Chili. Europe may now be said to be wholly dependent on Brazil for supplies of *diamonds*.

Climate.—The climate of America is almost as remarkable for the predominance of cold as that of Africa for its continual heat.

With the exception of the limited space along its W. shore, between the Andes in the S., and the Maritime Alps in the N., the temperature of the new world, in the same latitude, is every where inferior to the old. Countries which, from their geographical position, we should suppose would be mild and temperate, are exposed to long and severe winters, during which they are wholly covered with snow; and, in point of fact, the whole continent of N. America above the 50th degree of lat. is all but uninhabitable. Even in the 45th parallel, on the N. side of the Canadian lakes, frost is continuous for more than six months. This predominance of cold is no doubt ascribable to a great variety of causes, among the most prominent of which may be placed the extraordinary elevation of the soil. In S. America the climate is more inclined to moisture, and liable, beyond the 40th parallel, to dreadful tempests. To the S. of Cape Horn is the great Antarctic Ocean, where cold prevails even to a much greater degree than in the N., so that the winds coming from those inhospitable seas bring to the American continent all the unmitigated rigour of the polar regions.

Vegetation.—The products of every climate abound in the different regions of America, and in some parts its vegetation is most exuberant. It furnishes vast quantities of sugar, tobacco, coffee, cotton, cocoa, dye-woods, and medicinal barks.

The forests consist generally of very heavy timber, including

many species of pines and larches unknown in Europe, with an endless variety of oaks, maples, cypresses, tulip trees, logwood, mahogany trees, Brazil wood, &c. &c. The *cactus cochinitifer*, which furnishes the cochineal, is also peculiar to America.

Zoology.—America has few large quadrupeds, except the *bison*, the *musk-ox*, the *reindeer*, and some *bears* in the remote north. The largest beasts of prey, besides the last named, are the *jaguar*, a species of tiger, and *puma*, called the American lion, chiefly in S. America. But in useful animals this continent is more prolific; the *llama*, *alpaca*, *guanaco*, and *vicuuna*, are substitutes for the camel, sheep, and goats of the old world; and immense troops of wild horses, originally imported from Europe, wander over the *pampas*.

Tropical America has a great variety of *apes*. The *vampire-bat* in S. America is very dangerous. America is infested by a great variety of reptiles, of which the *rattlesnake* is one of the most common and most dangerous. The true *boa constrictor* is found of an enormous size in the marshes of tropical America. The birds of America are very numerous. The *condor* of the Andes is the most powerful and the largest of all. There are also many eagles, vultures, and other birds of prey, and a small species of *ostrich* inhabits the *pampas*. *Centipedes*, sometimes a yard in length, with enormous spiders, scorpions, &c. abound in tropical America.

Inhabitants.—The population of the New World amounts to 48,000,000. The native inhabitants, or *Red Indians*, are peculiar to this continent, having the physical characters of a distinct race. The tribes of the N. and S., though differing in civilization, and using varied dialects of one primary language, seem to have had a common origin. They are, however, much mixed with Europeans and negroes, and are rapidly becoming extinct. N. America is principally peopled by *Britons* and their descendants, a considerable number of *French* in Canada, some *Germans* in Pennsylvania and New York, and *Dutch*, *Swedes*, and *Spaniards* in other localities.

Besides these are the mixed races, as the *Mulatto*, sprung from the union of the white man with the negro; the *Mestizo*, from the European and the native Indian; and the *Zambo*, from the Indian and the negro.

Of the native languages of America, two of the most widely diffused are the *Quichua*, in Peru and Bolivia, and the *Asteo* on the plateaux of the Mexican isthmus.

NATIONAL DIVISIONS.

NORTH AMERICA.

N. America comprises the N.W. coast from the line of the 141st meridian to Behring's Straits, which belongs to Russia. The N.E. coast comprises Greenland or Danish America. With these exceptions, all that large portion of the continent which lies to the northward of the Gulf of Mexico and the course of the river Gila (33° N. lat.) is divided between Great Britain and the U. States. The boundary between these powers is formed by the line of the 49th parallel, the great lakes belonging to the basin of the St. Laurence, and a tract of high ground which borders on the southern bank of that river.

I. BRITISH NORTH AMERICA.

The whole area of the territory embraced within the limits of British N. America exceeds three millions of square miles. But only a small portion of this immense region is actually colonized. The settled portion comprehends the provinces of *Upper and Lower Canada*, *New Brunswick*, *Nova Scotia*, *Cape Breton Island*, *Prince Edward Island*, and *Newfoundland*, all of which are colonies belonging to the British crown.

CANADA lies wholly within the basin of the St. Laurence. Its area is about 350,000 square miles; population, 1,600,000; extreme length, 1520 miles; breadth varying from 200 to 400 miles.

Natural Features.—The great natural features of Canada are the river *St. Laurence* and the chain of lakes from

which it descends. Four of these lakes, *Ontario*, *Erie*, *Huron*, and *Superior*, have a large portion of their shores situate within the limits of this province; *Lake Michigan* is wholly within the territory of the United States.

The surface is extremely variable. It rises on the N.W. into a table-land, supposed to be 1200 or 1300 feet above the sea. The uncleared tracts are mostly a wilderness of forests, marshes, and lakes. The soil throughout a large part of Lower Canada is sterile, but it improves on proceeding westward; and the peninsula of Upper Canada, between Lakes Ontario and Erie on the S., and St. Clair and Huron on the W. and N., is one of the most productive regions in its latitude.

Climate, Natural Productions, &c.—The climate is variable. The mean summer temperature is about 70°; for four or five months annually the surface is covered with snow. Fogs are almost unknown. The grains and fruits of N. Europe, tobacco, flax, and hemp, are the chief crops. Timber trees consist of pines, firs, oaks, ash, hickory, and maple. Ginseng is indigenous, and the *Zizania Aquatica*, a grain somewhat similar to rice, is peculiar to Canada. The principal mineral products are iron, lead, coal, copper, salt, and sulphur.

Government.—The two provinces are united under the administration of a *governor-general*, a legislative council of 22 members elected by the crown, and a legislative assembly of 42 members from the provinces, elected by the people.

W. or UPPER CANADA comprises all the territory lying S. and W. of the *Ottawa River*. Chief towns, *Toronto* (pop. 19,700), *Kingston*, and *Hamilton*.

E. or LOWER CANADA comprises the whole territory lying N.E. of the *Ottawa* on both sides of the St. Laurence. Chief towns, *Quebec* (pop. 40,000), *Montreal*, and Three Rivers.

Canada is divided into the three colonial dioceses of Quebec, Montreal, and Toronto.

NEW BRUNSWICK, situated on the W. side of the Gulf of St. Laurence, is bounded S. by Nova Scotia and the

Bay of Fundy, N. by Lower Canada, and W. by the state of Maine in the U. States. Extreme length from N. to S. 180 miles; average breadth, 150 miles; estimated area, 25,900 square miles. Population (1847), 211,473. Chief towns, *St. John* and *Fredericton*.

The surface is undulating; the principal *rivers* are the St. John, Ristigouche, and Miramichi. The soil is fertile, but only a small portion of it is cleared.

The *government* is vested in a governor, council, and house of assembly of 26 members, which meets at Fredericton. The province forms the colonial diocese of Fredericton. The expense of the regular army is defrayed by the British government, but there is also a native militia of 20,000 men.

NOVA SCOTIA is a peninsula connected with New Brunswick by a low sandy isthmus, only 14 miles across, and separated on the N. from Prince Edward Island by Northumberland inlet, and by a narrow strait from Cape Breton on the N.E., having on either side the Atlantic and the Bay of Fundy. It is about 300 miles in length, and of very various breadth; area, 15,620 square miles. Estimated population (1850), 300,000. Chief town, *Halifax* (pop. 19,500).

Halifax contains two sets of barracks, the ordnance and commissariat department and military hospital. The dockyard, covering 14 acres, is the finest in the British colonies, and forms the chief depôt of naval stores in the N. American colonies, and the harbour, defended by strong forts, has an area of 10 square miles.

Nova Scotia forms, together with Prince Edward Island, a colonial bishopric of the English Church.

The cost of defence is defrayed by Great Britain. There are usually from 2000 to 3000 troops distributed over New Brunswick, Cape Breton, and Nova Scotia. The latter has also an organized militia of 26 regiments, including 44,248 men.

The constitution of Nova Scotia is a representative provincial government. The lieutenant-governor (subordinate to the governor-general of British N. America) is commander within the province, and the supreme civil as well as military authority. Under him is a

council of 12 members, of whom the bishop and chief justice are members *ex officio*, and the rest are appointed by the crown, and a house of assembly of 41 members.

CAPE BRETON ISLAND is separated from the N. extremity of Nova Scotia, of which province it is a part, by a narrow navigable channel. Extreme length from N. to S., 100 miles; extreme breadth, 85 miles; area, 3120 square miles. Population (1839), 35,000. Chief towns, *Sydney* and *Louisborg*.

Cape Breton forms a colony under the government of Nova Scotia, and sends two members to its House of Assembly.

PRINCE EDWARD ISLAND lies in the S.W. part of the Gulf of St. Laurence. Area, 2150 square miles. Population (1849) 62,600. Its capital is *Charlottetown* (which has a fort and barracks, and one of the best harbours in the Gulf of St. Laurence). The government is nearly similar to that of Nova Scotia, and for ecclesiastical purposes it is included in that diocese.

NEWFOUNDLAND is an island off the E. coast of Labrador, from which it is separated by the Straits of Belle Isle (12 miles across). Greatest length from N. to S., 350 miles; average breadth, 130 miles; area, about 36,000 square miles. Population (1845), 96,000. Capital, *St. John's*.

Climate, &c.—The climate in winter is very severe; in summer there is a brief hot season. The chief resources of the population are in the cod, seal, and salmon fisheries, the chief fishing-grounds being off the S.E. coast.

Newfoundland forms a separate colony, administered by a governor appointed by the crown, and has a representative assembly of 16 members, and an executive council of 12. It forms with the Bermudas a colonial see of the English Church. In time of war *St. John's* is a place of great importance. It stands at the inner end of an excellent harbour, and is protected by several strong batteries and forts.

LABRADOR is a peninsula situated between Hudson's Bay and the Atlantic. Area, loosely estimated at 420,000 square miles. Population (of Esquimaux chiefly), 4000 only. The chief European settlements are at *Forteau* and *Bradore* bays.

ANTICOSTI is a large desert island in the Gulf of St. Laurence.

HUDSON'S BAY TERRITORY embraces the remaining large portion of territory included within British N. America, which to the N. of the 49th parallel stretches across the entire breadth of the continent, from the Atlantic to the Pacific Ocean. *Fort York* is the principal trading station.

Over the greater part of this region there are only a few ports, or stations, scattered at wide intervals apart, and maintained by the officers of the Hudson's Bay Company, for the purpose of collecting the skins of the numerous fur-bearing animals which have here their native seat.

Generally speaking, both the climate and soil of the above territory are such as to unfit it for cultivation.

The W. coasts of Hudson's Bay, including all the country between the Rocky Mountains and Labrador, is now called *Rupert's Land*, under which name it has recently been erected into a colonial bishopric of the English Church.

VANCOUVER ISLAND lies on the coast of the Pacific, between the parallels of 48° and 51° N., and is separated from the mainland by the Gulf of Georgia. It is about 300 miles in length, and 40 or 50 miles broad. Area, about 14,000 square miles. *Fort Victoria* has been erected by the Hudson's Bay Company.

THE RUSSIAN TERRITORY in America comprehends the north-western corner of the continent, with several adjacent islands, both on the coast of the Pacific Ocean and within the area of Behring's Sea. The extent of this territory is estimated at 400,000 square miles. The principal of the Russian stations is *New Arkangel*.

II. THE UNITED STATES.

Boundaries and Extent.—The United States occupy the middle division of the northern continent of America, and are bounded N. by *Canada* and the *British possessions*; extending W. to the *Pacific* in the parallel of 49° N.; and on the S. by the *Mexican Republic* and the *Gulf of Mexico*. Extreme length, N. to S., 1000 miles; greatest breadth, E. to W., 1700; area, 3,000,000 square miles. The whole territory is not yet actually occupied by the white population, and the states of the Union are chiefly confined to its eastern part, viz. the valley of the Mississippi, and the country along the Atlantic coast. California alone is on the shores of the Pacific.

Natural Features, Climate, &c.—The United States territories, in their northern boundary, commence on the S. side of that elevated watershed which extends in a waving line from lat. 50° to 55° N. on the western side of the continent, and to lat. 45° on the eastern side, and which divides the rivers that flow N. to the Arctic Ocean from those that flow S. into the Atlantic and Pacific. The chain of the Rocky Mountains runs along the whole of the western parts, and the Alleghany and Appalachian mountains extend along a considerable portion of the eastern, or Atlantic side. Between these two chains lie the basins of the Mississippi, and its great tributaries the Missouri, Ohio, and Arkansas; so that the main portion of the United States may be characterized as one vast undulating valley.

An extensive *coal* bed forms the centre of the state Michigan. Coal also lies on the W. and E. flanks of the Alleghanies; and a continuous field of this mineral extends through Pennsylvania, Ohio, and Kentucky, to Alabama, lat. 33° S. Another extensive coal-field extends from Illinois to Kentucky. The soil of the great river basins is a deep vegetable loam.

The *climate* of the N.E. states is variable, with extremes of summer heat and winter cold. The S. states partake more of a tropical climate. The coasts of the Pacific are milder, and in the *N.* more moist, than those of the Atlantic.

N. of lat. 44°, the birch, pines, American elm, willow, maple, and the plants of N. Europe, are the chief forest products ; between lat. 44° and 35°, especially in the uplands, the oak, beech, sycamore, acacia, poplar, walnut, sassafras, and cedar, are predominant trees ; and in the lowlands of this region the cypress and other products of S. Europe. S. of lat. 35°, the magnolia, the tulip tree, sugar-cane, and cotton flourish, and the vegetation has mostly a tropical character.

Inhabitants.—The population of the U. States amounted in 1850 to 23,138,000, of whom no fewer than 3,067,000 were slaves ; and it is increasing with extraordinary rapidity, the annual immigration amounting to 200,000. The population are, in their origin, a mixture of British, Dutch, German, French, and African negroes ; the aboriginal Red Indian being now almost totally extirpated, except in the W., among the Rocky Mountains, and a few of the Cherokee nation, who have formed a community, and advanced considerably in civilization. The New England states (Virginia and the Carolinas) are almost purely of British descent. Many Dutch and Irish are incorporated with the population of New York and Pennsylvania, and the middle states. French and Irish are numerous in Louisiana and Indiana.

Industrial Pursuits.—*Agriculture* engages by far the greater part of the labourers of this country. The soil is naturally very fertile.

Wheat and maize are raised in every part of the Union. Oats, rye, buck-wheat, and rice are the other principal grains ; rice is produced in by far the greatest quantity in S. Carolina. Cotton is confined to the S. states ; the tobacco annually raised in the Union is about two million cwts., the principal portion of which is raised

in Virginia, Kentucky, Tennessee, Maryland, and N. Carolina. Hay hops, potatoes, wax, silk, hemp, flax, olives, madder, and indigo are the chief remaining crops.

Manufactures.—The manufactures of the U. States are extensive, and are rapidly progressing. The principal are those of cotton and woollen goods; next in importance to these are linens, with hardware, glass, and paper, and numerous minor articles.

Commerce.—The trade of the U. States is very extensive. The great article of export is *cotton*; indeed, the astonishing increase in the production of this article, and the great demand for it in foreign countries, has been the principal cause of the rapid growth and vast magnitude of American commerce.

Next to cotton, the great articles of export are wheat flour, Indian corn and provisions; tobacco, raw and manufactured; rice; the produce of the American fisheries; timber, &c.: the great articles of *importation* are manufactured products, including cottons, woollens, linens, hardware, and earthenware, principally from England; silks and wines, from France and Spain; tea, sugar, coffee, salts, spices, dye-stuffs, and an infinite variety of other articles from all parts of the world.

Internal Communication.—The internal communication is facilitated by numerous canals and railways. In 1849, there were 4000 *miles* of *canals* in operation, and 6000 *miles* of *railway*. Telegraphic communication and postage at a cheap rate extend throughout all the more densely peopled states.

Government.—The government of the United States is that of a confederated republic. Each state has its separate and independent legislative, judiciary, and executive government, consisting of an assembly, senate, governor, judges, &c., who have unlimited power in all local matters. The federal government consists of a president, chosen for four years, who is commander-in-chief of the army and navy. The senate consists of 60 members; over this body the vice-president presides. The House of Representatives numbers 231 members; their powers and duties correspond to those of the members of the English House of Commons. Congress holds its sittings at Washington.

Army.—The standing army, in 1850, amounted to 10,320 men, including 8 regiments of infantry, 4 of artillery, 2 of dragoons, 11 staff officers and medical officers. The whole territory of the U. States is subdivided into military departments, and three grand divisions, the head-quarters of the E of which are at Troy, New York, and of the W. at New Orleans, and those of the Pacific division at Sonoma, California. The army was however increased in 1851. The native Americans are all enrolled in the militia, which, in 1849, comprised 1,914,100 men.

Navy.—The naval force comprised, in 1849,

In commission.—Ships of the line, 3 ; razee, 1 ; frigates, 7 ; sloops of war, 14 ; brigs, 4 ; schooners, 4 ; steamers, 7 ; store ships, 6 ; total, 46.

In ordinary.—Ships of the line, 4 ; frigates, 5 ; sloops of war, 4 ; schooner, 1 ; steamer, 1 ; total, 16.

Repairing and equipping.—Sloop of war, 1 ; steamers, 5 ; store ships, 2 ; total, 8.

On the stocks and constructing.—Ships of the line, 4 ; frigates, 2 ; steamer, 1 ; total, 7.

There are seven navy-yards in the U. States ; those of Portsmouth in New Hampshire, Charleston near Boston, New York, Philadelphia, Washington, Portsmouth in Virginia, and Pensacola in Florida.

Religion.—No particular form of religion is established by law in the U. States. Each sect supports its own ministers, and provides for its own religious instruction.

There are 18 bishops in communion with the Church of England in the daughter church of America.

NATIONAL DIVISIONS, TOWNS.—The states of which the republic is composed amount to 31, besides the district of Columbia, and 4 territories, as follow :—

(I.) SIX EASTERN OR ATLANTIC STATES.

NOTE.—Places in *Italics* show where the legislature holds its sittings, but are not always the largest in point of population, or of the greatest commercial importance.

Name of State.	Area in sq. miles.	Population (1851).	Chief Towns.
1. Maine	30,000	582,000	<i>Augusta</i> , Portland, Bangor.
2. New Hampshire . .	9,280	318,000	<i>Concord</i> , Portsmouth.
3. Vermont	10,212	314,000	<i>Montpelier</i> , Burlington.
4. Massachusetts . . .	7,500	994,000	<i>Boston</i> , Lowell, Plymouth, Salem.
5. Rhode Island . . .	1,350	147,000	<i>Providence</i> , Newport.
6. Connecticut	4,674	380,000	<i>Hartford</i> , New Haven.

(II.) FIVE MIDDLE STATES.

1. New York	45,650	3,098,000	<i>Albany</i> , New York, Brooklyn, Hudson, Buffalo.
2. New Jersey	6,900	490,000	<i>Trenton</i> , Newark, Paterson.
3. Pennsylvania	46,000	2,341,000	<i>Harrisburg</i> , Philadelphia, Pittsburg, Reading.
4. Delaware	2,070	92,000	<i>Dover</i> , Wilmington.
5. Maryland	10,800	583,000	<i>Annapolis</i> , Baltimore.

(III.) TEN SOUTHERN STATES.

District of Columbia :	100	51,000	WASHINGTON.
1. Virginia	65,000	1,400,000	<i>Richmond</i> , Williamsburg, Fredericksburg, Charlottesville, Lynchburg.
2. Kentucky	39,000	993,000	<i>Frankfort</i> , Louisville.
3. Tennessee	43,260	1,050,000	<i>Nashville</i> .
4. N. Carolina	51,000	760,000	<i>Raleigh</i> , Fayetteville, Newbern, Wilmington.
5. S. Carolina	31,000	630,000	<i>Columbia</i> , Charleston.
6. Georgia	58,000	920,000	<i>Milledgeville</i> , Augusta, Savannah.
7. Florida	54,500	67,000	<i>Tallahassee</i> , St. Augustine.
8. Alabama	51,770	770,000	<i>Montgomery</i> , Mobile.
9. Mississippi	47,000	620,000	<i>Jackson</i> , Natchez.
0. Louisiana	45,500	450,000	<i>Baton Rouge</i> , New Orleans.

(IV.) TEN WESTERN STATES.

Name of State.	Area in sq. miles.	Population (1851).	Chief Towns.
1. Michigan	60,500	397,500	<i>Lansing, Detroit.</i>
2. Wisconsin	54,000	305,600	<i>Madison, Milwaukee.</i>
3. Ohio	38,850	1,981,900	<i>Columbus, Cincinnati, Cleve- land, Zanesville.</i>
4. Indiana	35,100	990,200	<i>Indianapolis, Vincennes.</i>
5. Illinois	59,000	850,000	<i>Springfield, Jackson, Chicago.</i>
6. Missouri	64,000	682,000	<i>Jefferson, St. Louis.</i>
7. Iowa	61,000	192,000	<i>Iowa, Burlington.</i>
8. Arkansas	52,000	195,000	<i>Little Rock.</i>
9. Texas	223,000	150,000	<i>Austin, Galveston.</i>
10. California	867,500	200,000	<i>San Francisco, Sacramento City.</i>
TERRITORIES :			
1. Oregon	341,400		<i>Oregon City.</i>
2. Minnesota			<i>St. Paul's.</i>
3. Utah			<i>Salt Lake City.</i>
4. New Mexico			<i>Santa Fé.</i>

III. MEXICO.

Boundaries and Extent. — *Mexico* embraces all the northern and broader portion of the isthmus which extends between the Pacific and Atlantic Oceans; and is bounded N.E. and N. by the *W. districts of the U. States* of N. America, E. by the *Gulf of Mexico* and the *State of Texas*, S. by *Guatemala*, and W. and S.W. by the *Pacific*. The Rio Grande del Norte and the Gila, an affluent of the Rio Colorado, form the northern boundaries. Area of the Mexican states about 1,030,442 square miles.

Natural Features, Climate, &c. — The natural features of this portion of America have been already described (pp. 181—192). The *climate* of the interior plateau differs materially from that of the low plains which stretch along the coast. In regard to temperature the whole country is divided into (1) the hot regions; (2) the regions of moderate heat; and (3) the cold regions. The first embraces the low coast and adjacent land; the second includes the slopes of the mountains; and the third comprehends the summit of the plateau,

and all districts which lie at a greater altitude than 5000 feet above the sea.

Inhabitants.—The population of Mexico amounts to 7,557,000, half of whom are Mexican Indians: the remainder are divided between the *Creoles*, or descendants of the early Spanish colonists; and the *mestizos*, or mixed races.

Industrial Pursuits.—Every branch of industry is in the lowest possible condition. The productions of Mexico are gold, silver, cochineal, hides, and Indian corn, besides a vast variety of fruits and other plants.

The principal mines are in the central departments. Mining is very ill-conducted; and of most kinds of industry, except domestic manufactures, in which some of the Indians greatly excel, few are attempted. The foreign commerce has been greatly declining during the last few years. The *exports* are chiefly cochineal, vanilla, jalap, sarsaparilla, and hides.

Religion.—The state religion is the Roman Catholic.

Government.—The present constitution is modelled on that of the U. States; the republic is divided into 19 states, each of which is permitted to manage its own local affairs, while the whole are cemented together in one body politic by fundamental and constituent laws. The powers of the supreme government are divided into three branches—legislative, executive, and judiciary. The legislative power is vested in a congress consisting of a house of representatives, a senate, and a president.

Army.—The army consisted in 1839 of about 20,000 men, exclusive of a militia of about 30,000. There are 5 fortresses, San Juan de Ulloa, Campeche, Perote, Acapulco, and San Blas.

The *Navy* consisted lately of 3 steam frigates, 5 small vessels, and some gun-boats.

Internal Communication.—The roads in Mexico are very defective, and scarcely any of them passable for carriages. Mules are every where used for the transport both of passengers and merchandise.

DIVISIONS, TOWNS, &c.—Mexico embraces 20 distinct states, which are united into a federal republic, like that of the United States, as follow:—

States.	DIVISIONS.					Chief Towns.
Chiapas	<i>Ciudad de las Casas.</i>
Chihuahua	<i>Chihuahua.</i>
Coahuila	<i>Saltillo.</i>
Durango	<i>Victoria.</i>
Guanaxuato	<i>Guanaxuato.</i>
Mexico	<i>Tezoco.</i>
Michoacan	<i>Valladolid.</i>
New Leon	<i>Monterey.</i>
Oaxaca	<i>Oaxaca.</i>
La Puebla	<i>La Puebla.</i>
Queretaro	<i>Queretaro.</i>
San Luis Potosi	<i>San Luis Potosi.</i>
Sinaloa	<i>Villa del Fuerte.</i>
Sonora	<i>Arispe.</i>
Tabasco	<i>Villa Hermosa.</i>
Tamaulipas	<i>New Santander.</i>
Vera Cruz	<i>Xalapa.</i>
Xalisco	<i>Guadalajara.</i>
Aguas Calientes	<i>Aguas Calientes.</i>
Zacatecas	<i>Zacatecas.</i>

TERRITORIES.

New Mexico and Lower California . . . . .	.
Colima	<i>Colima.</i>
Tlascala	<i>Tlascala.</i>
FEDERAL DISTRICT	MEXICO.

YUCATAN is a large peninsula, situated to the E. of Mexico. Upon the W. and N. it is bounded by the *Mexican Gulf*, on the E. by the *Gulf of Honduras*, and on the S. by *British Honduras* and *Guatemala*. Its superficial extent is about 70,000 square miles.

The surface is mostly level and fertile in the S., but deficient in regular supplies of water, though it is so inundated in summer as greatly to impede agriculture, in which, as well as manufactures, it appears to be behind even Mexico.

Cattle are numerous. Great part of the interior is covered with lofty forest trees, among which logwood is very abundant.

Yucatan has about 500,000 inhabitants. The capital of the country is *Merida*. The other towns are Valladolid, Isamal, Campeachy, and Tekax.

Yucatan now forms an independent republic.

IV. CENTRAL AMERICA.

Boundaries and Extent, &c.—Central America embraces the countries which stretch from the southern borders of Mexico to the isthmus of Panama, or those lying between the 8th and 18th parallels of N. latitude. It is bounded on the E. and N.E. by the *Caribbean Sea*, on the S.W. by the *Pacific*, and S. by New Granada. The greatest length from S.E. to N.W. is about 1000 miles; the breadth varies from 70 to 100 miles; the total area is 203,966 square miles. Its N. part extends between the British settlement Balize and the Mexican states. The S. part extends from the Gulf of Parita to the country lying between the Gulf of Nicoya and the Rio de St. Juan, about 280 miles. To this succeeds the plain of Nicaragua, 175 miles in length, and the same in breadth: the lake Nicaragua, which covers a considerable portion of the surface, being only 134 feet above the Pacific Ocean. The country to the E. of this plain is mountainous, some of its peaks attaining an elevation of 7000 or 8000 feet. The table-land of Guatemala extends from the isthmus of Chiquimula to that of Chuantepec in Mexico, and extends into the peninsula of Yucatan. It contains two volcanic mountains, upwards of 12,000 feet in elevation.

Climate.—The climate is hot and moist in the lowlands, where there are dense forests, but is milder and more salubrious in the elevated table-lands. On the coasts of the Caribbean Sea the rains

are very copious. Earthquakes are very frequent, especially in the table-lands, and numerous volcanoes exist.

Rivers.—The principal rivers are the Motagua, Rio Dulce, Rio Polochic, Chicsoi, Blewfields, San Juan, all of which flow N. or E.

Inhabitants.—Central America has a population of 1,900,000, consisting of aboriginal tribes, Europeans, and a mixed race. Several tribes live in an independent condition, without intercourse with Europeans, although those along the Mosquito shore consider themselves under the protection of the British.

According to the most recent accounts, the agriculture and commerce of the whole region is in a most déplorable condition.

The principal *exports* are indigo, cochineal, bullion, sarsaparilla, dye-woods, hides, balsams, mahogany, sugar, coffee, tortoise-shell, and cattle. The *imports* consist chiefly of cotton, linen, and silk fabrics, hardware, cutlery, wine, oil, spirits, and provisions.

The means of internal communication are very defective ; the roads are mere tracks, impassable for wheel carriages.

DIVISIONS, TOWNS, &c.—The five states of Central America are *Guatemala, San Salvador, Honduras, Nicaragua, Costa Rica* : it includes also the territory of *Balize* or *British Honduras*, and the *Mosquito coast*.

Government and Religion.—Each state has its own president, vice-president, senate, and assembly of deputies, who are chosen by electoral colleges. Spanish laws have been replaced by codes modelled on those of the U. States.

The established religion is the Roman Catholic.

States.	Chief Towns.
Guatemala	<i>New Guatemala.</i>
San Salvador	<i>San Salvador.</i>
Honduras	<i>Balize.</i>
Nicaragua	<i>Leon.</i>
Costa Rica	<i>San José.</i>

The *Mosquito territory* adjoins the territory of Costa Rica on the S., and the republics of Nicaragua and Honduras on the W. It is mountainous in the interior, and elsewhere highly fertile and abundantly watered. The *products* comprise cacao, cotton, sugar, indigo, vanilla, and logwood: The *climate* is more healthy than that of the W. India islands. The *principal towns* are *Blewfields* and San Juan de Nicaragua.

The *government* is a monarchy, under the protection of Great Britain, and chiefly administered by the British residents. The Mosquito Indians present a favourable specimen of the Indian character, and are attached to peaceful and industrious pursuits.

The colony of *British Honduras*, or *Balize*, embraces the most north-easterly portion of the coast of Central America. It is bounded N. and N.W. by *Yucatan*, S.W. and S. by *Guatemala*, and E. by the *Gulf of Honduras*. Its length is about 170 miles, its breadth 100. The shores are studded with numerous islands; the land along the coast is swampy, but the interior is wooded, and the soil of the valleys fertile. The *climate* is moist, but favourable to vegetation, and not unhealthy. The *rivers* are the Balize, Rio Hondo, and Siboon. The country is adapted for raising sugar, coffee, cotton, and indigo. The population, chiefly composed of negroes, may amount to 10,000. The territory forms a dependency of Jamaica, and is governed by a superintendent appointed by the crown, and seven magistrates elected by the people. It is also included in the diocese of Jamaica. *Balize*, a seaport town, is the capital.

SOUTH AMERICA.

S. America comprehends on the N. the republics of *New Granada*, *Venezuela*, and *Ecuador*; on the W. coast the republic of *Peru*, and S. of this *Bolivia* and *Chili*. Between these states and the Atlantic lie the united provinces of *La Plata*. The empire of *Brazil* lies to the E., watered by the Atlantic, adjoining which is the small state of *Paraguay*. *Uruguay*, or *Banda Oriental*, lies imme-

diately to the S. of Brazil, and *Patagonia* and *Terra del Fuego* form the southern limits of the continent. *Guiana*, on the N.E. coast N. of the Amazon, contains the British possessions of *Demerara*, *Essequibo*, *Berbice*, the French possessions of *Cayenne*, and the Dutch colony of *Surinam*.

I. NEW GRANADA, VENEZUELA, AND ECUADOR.

Boundaries and Extent.—The three states of New Granada, Venezuela, and Ecuador, are comprehended under the general name of *Columbia*.

NEW GRANADA stretches from the coast of the Caribbean Sea and the Gulf of Darien as far S. as the line of the equator, and from the Pacific on the W. to the upper course of the river Orinoco on the E. It embraces a portion of the shores both of the Atlantic and Pacific Oceans, and includes the narrowest portion of the isthmus of Panama. New Granada has an area of 369,600 square miles, and a population of about 1,686,000 inhabitants.

VENEZUELA, the most eastward of these states, extends from the shores of the Caribbean Sea on the N. to the chain of the Parime mountains on the S. It comprises an area of 416,600 square miles, and has about 945,000 inhabitants.

ECUADOR extends along the coast of the Pacific from 1° 40' N. lat. to 5° 5' S. lat., and stretches inland as far as the meridian of 70° W. Its area is variously estimated at from 212,000 to 325,000 square miles, and its population at from 550,000 to 600,000 inhabitants.

Natural Features, Productions, &c.—All the countries of Columbia possess many features in common, and for the most part resemble each other in their natural productions. New Granada is richer than either of the other in regard to mineral wealth, and contains gold, platinum, and silver, as well as iron, copper, lead, and other

ores. The agricultural produce of this part of America is particularly rich and varied. There are large herds of cattle in all the states, and their hides supply an important article of export.

Inhabitants.—These states are all very thinly inhabited. The population consists of three classes:—the whites (chiefly descended from the Spanish); the Indians; and the mixed races, or *mestizos*.

NATIONAL DIVISIONS, TOWNS.—*New Granada* contains five departments. The *chief towns* are *Santa Fé de Bogota* and *Carthagená*.

Venezuela is divided into five departments. Its *principal towns* are *Caracas*, *Cumana*, *Valencia*, and *Mara-caybo*.

Ecuador is divided into three departments. The *chief towns* are *Quito*, *Guayaquil*, and *Riobamba*.

II. PERU.

Boundaries and Extent.—Peru is situated on the W. side of S. America, and is bounded on the N. by the *Ecuador* republic, E. and S. by the territories of *Brazil* and *Bolivia*, and W. by the Pacific Ocean. The area is estimated at 580,000 square miles.

Natural Features, Climate, &c.—The double cordillera of the Andes traverses Peru from S.E. to N.W., separating it into three regions—the central or *Montana*, which has an average elevation of 12,000 feet above the ocean; the eastern forming a part of the great central plain of S. America; and the W., or *Valles*, between the mountains and the Pacific, and which has an average breadth of 60 or 70 miles.

The Andes and their branches are estimated to occupy 200,000 square miles of the surface, and one peak, the *Nevado de Chuquibamba*, rises to 21,000 feet in height.

The principal *rices* are the Marañon, Huallaga, and Ucayale, with the Apurimac, all having a northward course, and being tributaries to the Amazon, which waters most part of the N. frontier. About half the lake Titicaca is comprised in S. Peru. The whole coast region is arid and destitute of timber; and only the Piura river in this region is at all navigable. Rain rarely falls in the coast valleys of Peru W. of the Andes, but fogs and dews are frequent.

The *climate* on the coast is sultry and unhealthy, but higher up it is mild and salubrious. On the E. slopes of the Peruvian Andes, rain falls copiously. The soil in the valleys of the upland region is highly fertile, and here the grains of Europe are successfully raised.

Inhabitants.—The population of Peru is estimated at 1,515,000. More than half of these are Indians, and the remainder principally mixed races, the whites not amounting to a seventh part of the whole.

Natural Productions, &c.—Peru has long been famous for its mineral wealth. Besides the precious metals, it produces iron, copper, coal, tin, and nitrate of soda. Coarse cotton and woollen cloths are pretty generally made, together with fine cloaks, and blanketing, at Tarma; gold and silver articles, and jewellery, at Lima: but in general, manufactured goods are imported from Europe and N. America, in return for raw produce. The want of roads interposes great obstacles to internal traffic.

The *exports* consist of bullion, bark, chinchilla skins, cotton, copper ore, vicuña, alpaca, and sheep's-wool, hides, and sugar.

Religion and Government.—The Roman Catholic is the state religion, but other religions are tolerated.

Peru is a republic, under the administration of a president and congress, similar to that of the U. States.

Lima has a university and other colleges. The standing army numbers 3000 men.

NATIONAL DIVISIONS, TOWNS.—Peru is divided into seven departments as follow:—

Departments.	Chief Cities.
NORTH PERU:—	
Lima	LIMA, Callao.

Departments.	Chief Cities.
Truxillo	<i>Truxillo.</i>
Junin	<i>Huanuco.</i>

SOUTH PERU :—

Arequipa	<i>Arequipa.</i>
Ayacucho	<i>Huamanga.</i>
Cuzco	<i>Cuzco.</i>
Puno	<i>Puno.</i>

III. BOLIVIA.

Boundaries and Extent.—Bolivia is bounded on the N. and E. by *Brazil*, S. by the *La Plata* confederation, and W. by *Peru*. It has only a short coast-line on the Pacific, at the S.W. extremity. Its area is about 374,480 square miles.

Natural Features, Climate, &c.—All the centre of the country is covered with ramifications of the Andes, which here divide into two *cordilleras*, enclosing the lake of Titicaca. The *W. cordillera* forms the boundary on the side of Peru, and here are the highest peaks of the Andes (*Sorato* being 25,250 feet), and the volcanoes of Atacama, Tacora, &c. The region between the Pacific and the Andes is nearly barren, and is called the desert of Atacama. The valley of Titicaca is rather fertile, especially in the vicinity of the lake. The long valleys S. of the Sierra de la Cruz are the most populous and best cultivated parts of Bolivia, especially the valley of Cochabamba. The Yunga valleys N. of Sierra de la Cruz are also fertile. The plains of Moxos and Chiquitos are covered with dense forests.

The streams which descend from the W. valley of the Andes do not reach the Pacific, except the *Loa*, which flows 180 miles. Nu-

merous rivers descend from the E. declivity of the Andes ; these belong to the basins of either the Amazon or La Plata. The Desaguadero has its entire course, about 200 miles, in Bolivia.

In the middle region the rainy season and extensive inundations last from November to February ; but on the coast rain seldom falls.

Amongst the *vegetable productions* are cacao, cotton, indigo, rice, oats, barley, potatoes, maize, sugar-cane, cinchona (Peruvian bark), and numerous other valuable drugs, the finest fruits, and timber fit for every purpose.

The *mineral productions* include gold, silver, mercury, tin, and copper ; but many of the mines have been long since exhausted, and few of them are at present worked to any advantage.

Inhabitants. — The population of Bolivia is about 1,030,000 inhabitants. More than three-fourths of the population are Indians, the rest mestizos, Spaniards, and a few Africans.

Some of the tribes manufacture fine cloths, cotton goods, &c. The foreign commerce of Bolivia is small, owing to its being almost shut out by the Andes from contact with the sea.

The executive *government* is vested in a president ; the legislative functions are exercised by a senate, tribunes, and censors. There is no Church exclusively supported by the state. The standing *army* numbers about 2000 men.

NATIONAL DIVISIONS.—*Bolivia* is divided into nine departments. The *chief towns* are Chuquisaca, Potosi, Cochabamba, and Santa Cruz de la Sierra.

IV. CHILI.

Boundaries and Extent.—Chili is a long and narrow country on the W. shore of S. America. It is bounded on the E. by the *Andes*, on the N. by *Bolivia*, and on the W. by the *Pacific Ocean*. Its length from N. to S., including the island of Chiloe, is 1240 miles ; its breadth from 100 to 200 miles ; its area is 170,000 square miles.

Natural Features, Climate, &c.—The mountain slopes

of the Andes form the greater part of Chili. They are here a single range, except at two places, where they separate, and enclose the valleys of Tunyan and Uzpallata. N. of the Rio Chuapa the whole country is formed by the declivity of the Andes, except a narrow belt of plain, bordering on the sea. The surface is very irregular, rocky, and almost uncultivated, except a few spots on the banks of the rivers. S. of Rio Chuapa the country is more diversified. Hilly and sterile tracts occupy the middle of this space, but on either side are valleys and plains of considerable fertility.

The *climate* of central Chili is hot and dry, but, on the whole, healthy. In spring and winter ice is sometimes seen even on the coasts. In some of the valleys, as Copiapo, years pass over without rain falling, but dews are frequent. Earthquakes are frequent, particularly near the coast. The *Biobio*, the largest river in the country, has a course of 200 miles; the *Calacalla* admits vessels of considerable size. The vegetation of the N. of Chili is very limited. In the southern provinces a profuse vegetation prevails, and dense forests cover a great part of the surface. This is the native country of the *potato*. Among the *mineral productions* are gold, silver, copper, lead, and iron, but copper is the only one of these worked to any extent. Coal is found on the Biobio river.

Inhabitants.—The population is considered to exceed 1,300,000. : The greater number of them are of Spanish, or of mixed Spanish and Indian, descent.

All the inhabitants of the Biobio are of European descent, with scarcely any mixture of Indian blood. The aborigines inhabit almost exclusively the country south of this river (*Araucania*).

The *religion* is Roman Catholic. The *government* is vested in a supreme director, a senate of 20 members, and a house of representatives. Chili is at present the best governed and most prosperous of the S. American republics. A well-organized *militia* force has lately been established, and the standing army has been greatly reduced. A single frigate and some smaller vessels constitute the navy. Santiago has a lyceum and university.

The principal *manufactures* are earthenware jars, hempen cloths, cordage, soap, tallow, leather, and brandy. Jerked beef, tallow, hides, and live stock are exported. *Copper* is the staple commodity.

NATIONAL DIVISIONS, TOWNS.—Chili is divided into eight provinces as follow :—

Provinces.	Chief Towns.
Coquimbo	<i>Coquimbo.</i>
Aconcagua	<i>Quillota.</i>
Santiago	<i>Santiago.</i>
Colcagua	<i>San Fernando.</i>
Maule	<i>Villa de Cauquenes.</i>
Concepcion	<i>Concepcion.</i>
Valdivia	<i>Valdivia.</i>
Chiloe	<i>San Carlos.</i>

V. LA PLATA.

Boundaries and Extent.—The provinces embraced under the general appellation of the *La Plata*, or *Argentine Confederation*, occupy a large tract of the interior and eastern portion of S. America ; most of them belong to the basin of the La Plata river. On the N. they are bounded by *Bolivia*, on the E. by *Brazil* and the *Atlantic*, on the S. by *Patagonia*, and on the W. by *Chili*.

Natural Features, Climate, &c.—Except a portion of the Pampas, which is watered by the Río Negro, Colorado, and Desaguadero rivers, nearly all the country belongs to the basin of the Plata river, the great estuary of which is between this territory and Uruguay. The departments Mendoza, La Rioja, Catamarca, and Salta along its W. and N. frontiers are mountainous, and some elevated ranges are scattered over Cordova, and some parts of the country E. of the Parana ; but the rest of this region consists chiefly of two immense plains, the N. watered by the Salado, Vermejo, Pilcomayo, &c., forming part of the

Grand Chaco which extends into the E. half of Bolivia ; and the S. or Pampas, a plain covered alternately with luxuriant pasturage, and vast crops of gigantic thistles, and interspersed with a multitude of salt-lakes, some of large size.

The *climate* exhibits considerable variety : the N. parts are hot, excepting within the higher districts adjacent to the cordilleras. In the S. a cooler temperature prevails, and the province of Buenos Ayres has a climate resembling that of many parts of S. Europe. The northerly winds are hot, and resemble in their effects the *sirocco* of S. Europe.

By far the most important *product* is cattle. Millions of oxen wander at large across the plains, or are reared on breeding estates of vast extent. There are also immense herds of horses and mules.

The mineral wealth of La Plata is considerable, and small quantities of gold, silver, and copper are exported. Wheat, rice, maize, and numerous fruits are grown in many parts of this territory ; and in some of the N. tracts, tobacco, sugar, cotton, indigo, and Paraguay tea are cultivated.

There are few manufactures in La Plata ; the foreign trade is wholly monopolized by Buenos Ayres.

Inhabitants.—The population of La Plata is estimated at from 600,000 to 700,000.

In the S. provinces the population consists chiefly of whites, mostly of Spanish descent, though in Buenos Ayres there are numerous English, French, and other foreigners. In some of the N. provinces the Indians form the bulk of the population.

The provinces of La Plata constitute a federal republic, each state having a separate government of its own. In all the states the president or governor exercises nearly absolute power.

DIVISIONS, TOWNS, &c.—The names of the provinces of La Plata, with the chief town of each, are as follow :—

Provinces.	Towns.
Buenos Ayres . . .	BUENOS AYRES.
Santa Fé . . .	<i>Santa Fé.</i>

Provinces.	Towns.
Entre Rios	<i>Parana</i> (Bajada).
Corrientes	<i>Corrientes</i> .
Misiones	<i>San Ildefonso</i> .
Cordova	<i>Cordoba</i> .
Santiago	<i>Santiago</i> .
Tucuman	<i>Tucuman</i> .
Salta	<i>Salta</i> .
Catamarca	<i>Catamarca</i> .
La Rioja	<i>La Rioja</i> .
San Juan	<i>San Juan</i> .
San Luis	<i>San Luis</i> .
Mendoza	<i>Mendoza</i> .

PARAGUAY embraces the territory which is nearly enclosed by the *Paraguay and Parana rivers*. It has an area of 74,000 square miles, and a population of 300,000. The soil is very fertile. Rice, maize, cotton, and tobacco are cultivated. But the principal product is the *yerba mate*, or Paraguay tea. The government is nominally republican. The principal towns are *Ascension* and *Villa Rica*.

The republic of URUGUAY, or BANDA ORIENTAL, lies to the N.E. of the Plata estuary, and embraces a territory of 70,000 square miles, with a population of 250,000 inhabitants. Its capital is *Monte Video*.

PATAGONIA, a large country which occupies the S. extremity of S. America. It has been little explored. The W. coast is greatly indented and bordered by the Andes. The soil is arid and sterile. The Indians, who are thinly scattered over this region, are remarkable for their lofty stature; they lead a wandering life, and subsist chiefly on the flesh of wild quadrupeds, mushrooms, and fish.

VI. BRAZIL.

Boundaries and Extent.—Brazil occupies a large proportion of the eastern and central parts of S. America. It is bounded on the N. by *Guiana* and *Venezuela*, on the E. and N.E. by the *Atlantic Ocean*, on the W. by *Peru* and *Bolivia*, on the S.W. and S. by the provinces of *La Plata* and *Banda Oriental*. Its length from N. to S. is about

2600 miles, its greatest breadth 2450. Its area has been estimated at from 2,300,000 to 2,700,000 square miles.

Natural Features, Climate, &c.—The surface of Brazil is about equally divided into uplands and lowlands, or valleys. Two parallel mountain ranges traverse the country from N. to S., forming elevated ridges of table-land. Several minor ranges intersect the country, enclosing tracts, some of which are elevated, and others low-lying plains. The N. part of Brazil consists of the greater part of the vast plain through which flow the *Amazon* and its tributaries. The rivers, lakes, and water-courses are so numerous as completely to intersect this great plain, the soil of which is deep and soft, and covered for the most part with dense forests. The principal lakes are *Patos* and *Mirim*. There are many others of less size in the W. provinces.

The *climate* of the Amazon valley is of a tropical nature ; only the dry and rainy seasons are not very distinctly marked. The climate of central and W. Brazil is more varied, the heat in the dry season being excessive, while frosty nights are of frequent occurrence in winter. The climate in the S.E. coast is, notwithstanding its low latitude, as genial as that of Italy, being clear and serene, and refreshed by the sea-breeze from the E.

The *productions* of Brazil are very varied ; the diamond mines of Minas Gerães are the most productive at present known. Other gems, and large quantities of gold, besides silver, copper, iron, and platinum, are among the mineral products. The dense forests furnish almost every variety of useful and ornamental timber. Wild animals comprise the jaguar, hyena, tiger-cat, and other rapacious kinds ; with the tapir, wild hog, &c. ; and a great variety of birds of the richest plumage.

Inhabitants.—The population of Brazil is about six millions. The whites are chiefly of Portuguese descent, and amount to a sixth part of the entire population. The remainder include *mulattoes*, *mamalucoes*, *negroes*, *mestizos*, or *zamboes*, and the *aborigines*, or *American In-*

dians. Of the aborigines, one portion is in a civilized condition, who are styled Cabocloes : the rest are in a savage and unreclaimed state.

The industry of Brazil is chiefly agricultural. Cocoa, caoutchouc, and manioc, are indigenous products ; maize, sugar, coffee, cotton, wheat, and tobacco, have been introduced by European culture.

Hides, horns, bones, tallow, and other animal products, form leading articles of the export trade ; and from the capital, drugs, diamonds, gold dust, dyes, rice, manioc, tapioca, and rosewood are exported ; but coffee is the staple. The coasting trade is very active, but the internal traffic is impeded by the want of good roads.

Religion, Government, &c.—Roman Catholicism is the prevailing and recognized creed. The *government* is a limited hereditary monarchy ; the legislative power is vested in a senate of 54 members and a chamber of deputies.

The standing *army*, in 1844, consisted of 17,095 men ; and the *navy* of 67 vessels, carrying 350 guns.

NATIONAL DIVISIONS.—Brazil is divided into 18 large provinces ; but those in the interior are little known, and have been rarely visited by Europeans. The *chief towns* are, RIO JANEIRO, *Bahia*, *Pernambuco*, *Maranham*, *Para*, *San Paulo*, *Villa Rica*, and *Villa Bella*.

VII. GUIANA.

The name of Guiana was formerly applied to all the country lying between the Amazon and Orinoco rivers ; but the name is now given to smaller portions of *British*, *Dutch*, and *French Guiana*.

The *surface* of Guiana, near the ocean, is a rich alluvial flat, and extends in mud banks into the sea. This plain extends inland from 10 to 40 miles, in the British portion of the territory. The country then rises by successive terraces towards the distant mountains of the interior ; the terraces being formed by ranges of hills which

cross the country in the direction of E. and W., with wide plains between. Nearly all the large rivers of Guiana have their courses in a northerly direction. The *climate* of Guiana is strictly tropical ; the heat is at all times great, but it is modified by the influence of the trade-winds, and the frequent rains. The vegetation is perhaps the most luxuriant of any on the surface of the globe. In all the colonies the negroes form the great bulk of the population, and perform the various labours of agriculture. The staple *productions* are sugar, coffee, and cotton ; Indian corn and rice are cultivated, with manioc, yams, and arrow root.

BRITISH GUIANA, on the W., extends from the river *Corentyn* to the southern entrance of the *Orinoco*, and comprises an area of 76,000 square miles.

Near the W. boundary, Mount Roraima rises to an elevation of 7500 feet. The principal *rivers* are the *Essequibo*, *Demerara*, *Berbice*, and *Corentyn*. The population may be estimated at 100,000, exclusive of 30,000 aborigines. The European population are mostly descendants of the Dutch settlers. The African negroes are more numerous than the Europeans.

The *government* is vested in a governor and council.

The colony is divided into the counties *Demerara*, *Berbice*, and *Essequibo* ; the *chief towns* are *George Town*, the capital, and *New Amsterdam*.

DUTCH GUIANA, in the centre, extends between the rivers *Maroni* and *Corentyn*. It has an area of 38,500 square miles, and a population of 65,000, of whom 6000 are whites or free coloured people, chiefly Dutch, French, and Jews, and the remainder negro slaves. The principal *river* is the *Surinam*. The *government* is vested in a governor-general and a high council. The *chief town* is *Paramaribo*.

FRENCH GUIANA forms the E. and smallest division of Guiana. It has an area of 27,560 square miles, and a population of 21,600 inhabitants, three-fourths of whom are negro slaves.

The *government* is vested in a governor, privy council, and colonial council. The *chief town* is *Cayenne*, the capital ; the rest are insignificant.

VIII. THE WEST INDIES.

The islands of the West-Indian Archipelago, as has been already noticed at pp. 188, 189, include three principal

divisions—the *Greater Antilles*, the *Lesser Antilles*, and the *Bahama Islands*. The total area of the Archipelago is 86,548 square miles¹.

Natural Features, Climate, &c.—Nearly all the islands of the Greater and Lesser Antilles are mountainous, and exhibit great diversities of surface. In Cuba and Hayti the highest elevations exceed 7000 feet, and in Jamaica some of the hills are of nearly equal altitude. The Lesser Antilles are of volcanic origin, and many of them rise to elevations of between 4000 and 5000 feet. The Bahamas are composed of coral rocks, and are mostly low and level.

The *climate* of the whole is tropical, but modified by the surrounding ocean and the elevated land of many of the islands. The chief *products* and *exports* are sugar, coffee, cotton, dye-woods, and spices.

Inhabitants.—The total population of the W. India Islands is 3,399,000. Two-thirds of these are negroes; the remainder consists almost entirely of whites and *mulattoes* (or people of mixed European and negro blood). The native Indian race has been almost exterminated.

With the exception of *Hayti*, all the islands of the West Indies are in the possession of European nations, and the white population of each consists chiefly of settlers from the country to which it belongs.

In all the British W. Indies, the negroes are in the position of free labourers; but in most of the other islands (excepting *Hayti*) the black population consists chiefly of slaves.

DIVISIONS, TOWNS, &c.—The SPANISH POSSESSIONS in the W. Indies are the islands of *Cuba* and *Porto Rico*, with a few small dependencies of the former.

CUBA, the largest of the W. India isles, is of an elongated, narrow shape, 764 miles in length, and varying in breadth from 25 to 130

¹ Other statements make the area greater.

miles. Its area, including its dependent islands, is about 32,800 square miles. Its population amounts to 1,007,000. The coasts are surrounded with reefs and shallows, and only one-third of them accessible to vessels; on this part, however, there are several excellent harbours. There are numerous islets surrounding the coast, the principal of which are Los Pinos, Romano, Turignano, Cruz, and Coco. The S.E. part of the island is intersected by a mountain range, the *Montaños del Cobre*, the highest parts attaining an elevation of 7000 feet. The N. part is more level, with rich valleys and fertile plains. There are no large rivers. The *climate* is more temperate than that of the other W. Indian islands, but also more variable. Earthquakes are frequent. Except in the low marshy grounds the climate is healthy.

Only a small proportion of the land, about two millions of acres, is under cultivation, but it produces abundant crops of maize, yams, bananas, potatoes, sugar, coffee, and tobacco. The internal traffic is now facilitated by improved roads, and upwards of 800 miles of railway are in operation. The *government* of the island is vested in a captain-general, who is supreme military commandant and civil governor of one of the provinces. There is a governor of the other provinces, who has independent civil power, and is responsible only to the court of Spain.

Cuba is divided into three provinces. The *chief towns* are *Havanna*, Santiago, Matanzas, Santa Clara, Santa Maria, Trinidad, &c.

Porto Rico is situated to the E. of Cuba, the large island of Hayti lying between them. Its length from E. to W. is 110 miles; its breadth 40 miles. Area, 3750 square miles. Population, 500,000. The surface is generally undulating, and very fertile. A mountain range extends from E. to W. through the island, and from its sides descend many small rivers, some of which are navigable for several leagues from the sea. The coasts are indented by numerous good harbours.

Indigo, cotton, tobacco, hides, cattle, dye-wood, and timber, are, next to sugar, maize, and rice, the chief products. Porto Rico is governed by a captain-general.

The *chief towns* are *San Juan de Porto Rico*, Mayaguas, Ponce, and Guayama.

The independent island of HAYTI, or ST. DOMINGO, is

nearly 400 miles in length, and from 60 to 150 broad. The area is 29,500 square miles. The population is nearly 1,000,000, mostly composed of blacks and mulattoes.

The centre is occupied by a mountainous region, Mount *Chaco*, attaining an elevation of upwards of 6000 feet. The soil is generally well watered. The *climate* is tropical, and on the plains unhealthy to Europeans, but the soil is highly fertile, and a great part of the island is covered by dense forests of mahogany, iron-wood, logwood, cedar, and other valuable timber trees. The *products* comprise the plantain, vanilla, and manioc, besides the ordinary colonial resources. The *government*, nominally republican, is in reality a military despotism. The Roman Catholic is the established religion, but all others are tolerated. The island constitutes two distinct states, the E., or former Spanish portion, bearing the title of the Dominican Republic (of which *St. Domingo* is the capital); and the W. forming the empire of Hayti, of which the capital is *Port au Prince*.

The BRITISH POSSESSIONS in the W. Indies embrace the large island of *Jamaica*, with the greater numbers of the *Lesser Antilles*, and the entire Archipelago of the *Bahamas*.

JAMAICA lies to the S. of Cuba. Its length from E. to W. is 150 miles; its average breadth 40 miles. Its area is 4250 square miles.

The *Blue Mountains* traverse the whole length of the island from E. to W., varying in elevation from 5000 to 6000 feet; on their S. side the shores are abrupt, the surface broken, and the scenery bold: on the N. the country is undulating, and descends gradually to the sea, and this side of the island is considered the more healthy. The island is well watered. The principal *rivers* are the Minho, Black river, and Cobre, all disemboguing on the S. coast. The soil is naturally less productive than in many of the W. Indian islands; but most of the staple products of tropical climates are raised, sugar being the chief. Fine fruits are plentiful. The principal *ports* are Kingston, Montego Bay, and Falmouth. Jamaica is divided into three counties, Middlesex, Surrey, and Cornwall. The *government* is vested in a governor, and a council of 12 members nominated by the crown, and a legislative assembly of 45 members. The island is the see of a bishop, whose diocese extends over the Bahamas and Hon-

duras. The military force consists usually of about 3000 regular troops, and a militia of from 16,000 to 18,000 men.

The *chief towns* are *Spanish Town* and Kingston (between which a railway has lately been completed). To the N.W. of Jamaica are the three small islands of Grand Cayman, Little Cayman, and Cayman Brack.

TRINIDAD, the most S. of the British W. India islands, lies immediately off the coast of S. America. Length 50 miles, breadth 30 miles. Its area is estimated at 2000 square miles. Population 60,300. Its mountain chains run W. to E., continuous with those of the mainland, those along the N. coast rising to 3000 feet in height. On the W. coast are numerous bays, but the N. and E. shores are destitute of harbours. The soil is extremely fertile. The *chief town* is *Port of Spain* on the W. coast.

TOBAGO lies to the N.E. of Trinidad, and has an area of 187 square miles and a population of 13,200. The surface is mountainous and broken, and cultivation is mostly limited to the low coast lands in its S. half. The *chief town* is *Scarborough*, on the S. coast.

BARBADOES is the most easterly of the British W. India islands. Its area is 166 square miles. Population 122,100. The shore is low, except on the E. side: the surface is mostly level, but in the N. *Mount Hillaby* rises to 1147 feet. This island has a more healthy climate than the others; but destructive hurricanes sometimes occur.

Barbadoes is the residence of the governor-general of all the British windward islands, and the see of a bishop with authority over the same. The *capital* is *Bridgetown*.

GRENADA has an area of 138 square miles, and a population of 28,900. The surface is mountainous in the centre. The climate is unhealthy; the soil fertile. The *chief town* is *St. George*.

St. VINCENT has an area of 130 square miles, and a population of 27,240. The centre of the island is mountainous, and the Souffriere, an extinct volcano, rises to 3000 feet above the sea. It has many rich valleys: and all around the coast is a rich belt of low-land. The *capital* is *Kingstown*.

St. LUCIA has an area of about 300 square miles, and a population of 21,400, many of French descent. The surface is mostly elevated; in the N. and S. it is marshy: and both there and in the narrow valleys very unhealthy. The *chief town* is *Castries*.

DOMINICA has an area of 275 square miles, and a population of 18,200. It is of volcanic origin, and the most elevated of the Lesser Antilles, being partly mountainous and rugged, but interspersed with

fertile valleys, and well watered. Hot and sulphureous springs abound. The soil is fertile. The *chief town* is *Roseau*.

ANTIGUA has an area of 108 square miles, and a population of 36,400. The coasts are deeply indented and rugged; the interior is rich and highly diversified. The climate is remarkable for its dryness. The *chief town* is *St. John's*.

BARBUDA has an area of about 75 square miles, and a population of 1600. The greater part of the island is flat and fertile, producing corn, cotton, pepper, and tobacco; but no sugar. There is no port, but a roadstead with several forts on the W. side.

MONTSERRAT has an area of 47 square miles, and a population of 7300, of whom six-sevenths are blacks. The surface is mountainous, and broken by numerous chasms. The climate is healthy; the soil light and volcanic. The *chief town* is *Plymouth*, on its S.W. coast.

NEVIS has an area of about 20 square miles, and a population of 7400. Its shape is circular; and the surface rises to a central peak 2500 feet in elevation. The soil is fertile. *Charlestown* is the *capital*.

ST. CHRISTOPHER, or ST. KITT'S, has an area of 68 square miles, and a population of 23,000. The greater part of the surface is rugged and mountainous, but a fertile plain extends along part of the coast. The climate is dry and healthy. The *capital* is *Basseterre*.

ANGUILLA, or Snake Island, has an area of 35 square miles, and a population of 2900. It is low and wooded. Off its N.E. coast is the little island *Anguilletta*.

Three of the *Virgin Islands*, namely, *Tortola*, *Virgin Gorda*, and *Anegada*, belong to Great Britain.

TORTOLA has an area of 26 square miles, and a population of 8500. It consists mostly of a range of hills, in its N. part encircling a harbour, on the W. side of which is the *town Tortola*.

ANEGADA has an area of 13 square miles, and a population of 200. It is low, and has a dangerous coral reef.

VIRGIN GORDA is of very irregular shape, and contains an area of 10 square miles. It has many inlets affording anchorage.

The BAHAMA, or LUCAYO ISLANDS, comprise a group of 500 islands and islets (called *Cayos*, or Keys). Their united area is estimated at from 4400 to 5450 square miles. Population about 26,000.

Most of the islands are mere coral rocks, but some are of tolerable size, as *Abaco*, the *Great Bahama Island*, *Eleuthera*, *Andros*, *New*

Providence, Guanhami, Ezuma, Long and Crooked Islands, Mari-guana, Great Key, and Great Inagua.

The principal *products* are cotton, Guinea corn, salt, pepper, turtle, and fine apples.

Nassau, or New Providence, is the capital.

The British possessions in the W. Indies constitute four sees of the English Colonial Church,—the dioceses of Jamaica, Barbadoes, Antigua, and Guiana.

The FRENCH POSSESSIONS in the W. Indies comprise the islands of *Martinique* and *Guadaloupe*, with some small dependencies of the latter.

MARTINIQUE lies between *St. Lucia* and *Dominica*. It has an area of 380 square miles, and a population of 118,000. It is mountainous, and contains several extinct volcanoes. About one-fourth of the surface is covered with forests. The soil is fertile. The chief *products* are sugar, coffee, and cacao. The *capital* of the colony is *Fort Royal*, but *St. Pierre* is the most populous town, and the centre of commerce.

GUADALOUPE is divided into two islands by the *Salt river*. The E. island is *Grande Terre*, 36 miles long by 12 miles broad. It is generally low, of coral formation, with a sandy soil, and ill watered. The *chief town* is *Point-a-Pître*.

Basse-Terre, or Guadaloupe Proper, is 35 miles long, by 18 miles broad, and is traversed by volcanic mountains. It has a boiling spring issuing out of the sea. This island is well watered and fertile. *Basseterre* is the *chief town*.

The contiguous islands are *Marie Galante, Desirada, and Saintes*.

The DUTCH POSSESSIONS in the W. Indies are part of *St. Martin*, with the small adjacent islands of *Saba* and *St. Eustatius*; and the islands *Curaçao, Oruba, and Buen Ayre*, all three lying off the N. shores of Venezuela, on the S. American continent.

The Dutch part of ST. MARTIN contains about 4000 inhabitants. Its *products* are sugar, cotton, and salt.

ST. EUSTATIUS has an area of about 20 square miles, and a popula-

tion of 2400. *Saba* is a dependency of *St. Eustatius*, and has an area of 15 square miles, and a population of 1600.

CURAÇAO lies off the N. coast of Venezuela, being 40 miles in length, and from 6 to 10 in breadth. The population amounts to 15,100. The shores are bold, the surface hilly; the soil is not rich, and deficient in water, yet a good deal of sugar, indigo, tobacco, and maize are raised. The chief town is *Williamstad*, or *Curaçao*. *Oruba* lies to the W., and *Buen Ayre* to the E. of Curaçao.

The islands of *Santa Cruz*, *St. Thomas*, and *St. John*, forming part of the Virgin Islands, belong to *Denmark*.

SANTA CRUZ, the largest of the Virgin Islands, has an area of 110 square miles. The chief town is *Christianstadt*.

The islands of *St. John* and *St. Thomas* are situated to the N. of Santa Cruz; they are high and rocky, and have towns of the same name as the islands.

ST. BARTHOLOMEW lies to the S. E. of *St. Martin*, and belongs to *Sweden*. It has an area of 25 square miles, and a population of 18,000. The soil is fertile, and produces sugar, tobacco, cotton, and cocoa. The chief town is *Gustavia*.

Culebra and *Bieque* are the most westerly of the Virgin Islands, and lie near to *Porto Rico*.

The BERMUDAS, or SOMERS' ISLANDS, are a group of 300 small islands, situated in the open part of the Atlantic, 600 miles E. from South Carolina, and belong to Great Britain.

The total area of the group is about 20 square miles; the population amounts to about 10,000. The surface is mostly low, and of coral formation. Many rocky reefs surround the Bermudas, which are visited by severe gales in winter; but among the islands are several good anchorages. The climate is mild and salubrious. The fruits of both tropical and temperate regions are raised.

St. George's and *Ireland Islands* are strongly fortified; on the former is *Hamilton*, the capital, and the latter is entirely occupied by its fortress, arsenal, and dockyard. It is the great convict station. The government is vested in a governor, a council of 8 members,

and an assembly of 36 members. The principal *exports* are arrow-root, cocoa, potatoes, onions, palmetto, and straw hats.

The FALKLAND ISLANDS are a group in the S. Atlantic, belonging to Great Britain, and consisting of 2 larger and 200 smaller islands, situated about 300 miles E. of the Strait of Magellan. The E. Falkland island is nearly 100 miles in length, and 60 in breadth; the W. Falkland measures about 90 by 50 miles; they are separated by Falkland Sound. The shores are greatly indented, and mostly low, but afford good harbours. The *climate* is temperate and healthy, but moist westerly winds, often very violent, prevail. Grass lands are very luxuriant, and these islands are well adapted for rearing live stock. *Stanley* is the only town. The population does not exceed 300.

AUSTRALASIA.

THE term Australasia includes *Australia*, with numerous islands lying in the adjacent seas. The principal of these are *Van Diemen's Land*, *New Guinea*, *New Britain*, *New Ireland*, *Queen Charlotte's Islands*, the *New Hebrides*, and *New Caledonia*.

AUSTRALIA.

• PHYSICAL GEOGRAPHY.

Boundaries and Extent.—Australia composes the main portion of Australasia, and lies S. of the Asiatic Archipelago, between lat. 10° and 39° S. and long. 113° and 154° E.; having W. the *Indian Ocean*; E. the *Pacific Ocean*; N. the *Sea of Timor*, and *Torres Strait*, separating it from Timor, Papua, &c.; and S. *Bass's Strait*, dividing it from Van Diemen's Land. Its length from E. to W. is 2500 miles; its greatest breadth about 1800 miles. Its area is estimated at 3,000,000 square miles.

Gulfs, Bays, &c.—Australia, like the continents of Africa and S. America, is but little indented with arms of the Ocean, and presents no wide estuaries of rivers.

The principal indentations are the *Gulf of Carpentaria* on the N.; *Halifax* and *Moreton Bays* on the E.; *Port Philip*, the *Gulf of St. Vincent*, and *Spencer Gulf* on the S.; and *Shark Bay*, with a few others, on the W. coast. *Botany Bay* and *Jervis' Bay* are inlets of small size; and, upon the whole, the coasts of Australia are deficient in good harbours.

Capes.—The principal headlands on the Australian coast are *Cape York*, in the N.; *Cape Byron*, in the E.; *Cape Howe*, at the S.E., and *Wilson Promontory*, at the S.; *Cape Leeuwin*, in the S.W.; and *North-West Cape*, *Cape Leveque*, and *Cape Londonderry*, all on the N.W. coast.

General Features of the Surface: Mountains.—Only the S.E. part of Australia, with comparatively small sections in the W. and S., and an inconsiderable tract in the N., have been yet thoroughly explored. In the S.E. a succession of mountain ranges stretches from Gipps'-land to lat. 26° S., at a distance from the coast varying generally from 50 to 100 miles. The *Australian Alps*, or *Warra-gong Mountains*, belong to this chain, and are constantly covered with snow; *Mount York* (belonging to the *Blue Mountains*) rises to 3292 feet; and the *Liverpool range*, within the colony of New South Wales, rises to 6000 or 7000 feet. In W. Australia the *Darling* and other parallel ranges rise frequently to 2000 or 3000 feet. The N. coast seems to be mostly low and level.

Rivers and Lakes.—The only river system hitherto explored is that of the *Murray*, which is swelled by the *Darling*, *Castlereagh*, *Peel*, *Macquarrie*, *Bogan*, *Lachlan*, and *Murrumbidgee* rivers.

The other rivers are the *Hunter*, *Hawkesbury*, and *Shoalhaven*, on the E.; the *Blackwood* and *Glenelg* on the S.; the *Swan* and

Canning on the W., and Victoria, Adelaide, Liverpool, and Alligator on the N. coast ; but few of them serve to facilitate internal navigation.

The principal *lakes* are those of *Victoria* and *Torrens*, in S. Australia ; the latter, which appears to be merely a salt marsh in the dry season, has a remarkable serpentine form ; but its entire extent has not been yet determined.

Climate.—The climate is peculiar, and subject to great vicissitudes of temperature. The N. half of the country being mostly within the tropics and range of the monsoons, is subject in summer to heavy rains. In other parts years of complete drought occur, followed by years of flood ; but here the hot is also in general the dry season,—a circumstance favourable to health. The N.E. winds blowing over the sandy deserts of the interior are hot and dry. On the other hand, the S.E. winds are often very cold, and frost sometimes occurs in the lowlands in June.

Natural Productions, &c.—Granite, limestone, coal, and slates are the chief *mineral products*, and rich ores of *gold*, *copper*, and *lead* have been recently discovered.

Ferns, nettles, and grasses, some of gigantic size, hard timber, gum and resin trees, with palms, myrtles, cedars, pines, and a multitude of odoriferous plants, are the chief *vegetable products* ; but it is remarkable that there are, with one or two exceptions, no indigenous fruits. Maize, wheat, tobacco, flax, indigo, vines, olives, and in some parts sugar and cotton, are successfully raised ; but sheep-farming is the most flourishing branch of pastoral pursuits, and it is principally as a wool-growing country that Australia is rising into commercial importance.

The indigenous quadrupeds hitherto discovered comprise 58 species, of which 46, including the kangaroo, wombat, and other *pouched* animals, are peculiar to Australia and its adjacent islands. The singular *ornithorhynchus paradoxus* (having the body of an otter with a bill like a duck) is an animal found here only ; and it may be remarked that in many particulars nature assumes here a form unparalleled in other parts of the globe.

Inhabitants.—The native Australians are viewed by many as a distinct variety of the human race ; and certainly their numerous dialects have no discovered affinity with any other language. They live in roving tribes, and, though not deficient in intellect, are in their habits among the lowest in the scale of humanity,—many tribes going completely naked, practising cannibalism, and having scarcely any notions of a Deity, or of social arts and order. They are not, however, intractable, or devoid of generosity. Their numbers in and near the European settlements are not supposed to exceed many thousands. The total number of the colonial population amounts to 340,500.

THE AUSTRALIAN COLONIES.

The occupied portions of Australia constitute the four British colonies of *New South Wales*, *Victoria*, or *Port Philip*, *South Australia*, and *Western Australia*. *Port Essington* in the N. has been abandoned.

NEW SOUTH WALES.

Boundaries and Extent.—New South Wales, in its popular and widest acceptation, comprises all that immense portion of the continent lying E. of 141° E. long., having N. *Torres Straits*, by which it is separated from New Guinea ; E. the *Pacific Ocean* ; S. *Bass's Strait*, separating it from Van Diemen's Land ; and W. *S. Australia*, and a wide extent of unexplored regions. This vast territory extends through 27 degrees of latitude, and includes an area of 800,000 square miles.

But what is called the colony of N. S. Wales, or *N. S. Wales Proper*, comprises the territory between the *tropic of Capricorn* on the N., and *Cape Howe*, in the S., having

a coast line of about 973 miles. The estimated area of its settled portions is about 53,100 square miles.

Natural Features, Climate, &c.—The *Blue Mountains*, which traverse the colony from N. to S., separate the undulating maritime counties, Gloucester, Northumberland, Cumberland, Camden, and St. Vincent, from the region watered by the Macquarrie, Lachlan, Murrumbidgee, &c. Along the coast are several bays, good harbours, chiefly at the mouths of rivers; the principal of these are Ports Jackson, Hunter, Stephens, and Macquarrie, and Bateman, Jervis, and Botany Bay.

The *climate* is rather hot and dry, but equable. The air is pure and free from malaria and noxious vapours, and on the whole very healthy; but the country suffers frequently from drought, and it is more adapted for pasturage than tillage.

Wheat, maize, barley, oats, hay, and potatoes, are the principal crops; some tobacco is raised in the N., and the climate and soil are well suited for the culture of the vine.

Sheep-farming is the principal branch of husbandry.

Inhabitants.—N. S. Wales contains a population of upwards of 187,000 inhabitants (chiefly emigrants from the British Islands).

Divisions, Towns, &c.—N. S. Wales Proper contains 46 counties. The *chief towns* are SYDNEY, Parramatta, Windsor, Mailland, Newcastle, Bathurst, and Goulburn.

Religion, Government, &c.—The colony is subdivided into the dioceses of Sydney, Newcastle, and Melbourne. The *government* is vested in a governor appointed by the crown, an executive council of 4 members, and a legislative council of 36 members. The statute laws of England are in force.

VICTORIA, OR PORT PHILIP.

Boundaries and Extent.—*Victoria*, or *Port Philip*, comprises all the part of Australia S. of the rivers *Murray* and *Murrumbidgee*, between lat. 34° and 39° S., and long. 141° and 150° E. Its area is 80,000 square miles.

Natural Features, Climate, &c.—This territory derived its name from the fine bay of *Port Philip*, near the centre of its coast line ; besides which there are the inlets *Western Port*, *Corner Inlet*, *Lake King*, *Port Fairy*, and *Portland Bay*, most of which afford good anchorage.

The surface is mostly undulating or level, separated into different river basins by hill chains. In the E. the *Warragong* mountains shut off the fertile and densely-wooded maritime region *Gipps'-land* from the rest of the country. In the W. are the *Australian Pyrenees and Grampians*. The principal rivers are the *Murray*, *Hume*, and *Hovell*, N. of the mountains ; the streams flowing direct to the sea are all small, and scarcely navigable, but the country there is well watered, and it has many considerable salt lakes.

The climate is more similar to Great Britain than in any other part of Australia, being moist, less hot than N. S. Wales in the summer, and not so cold as Van Diemen's Land in the winter. The soil is more fertile generally than in N. S. Wales, though around the borders there are extensive tracts of barren land.

Inhabitants, &c.—The population amounts to about 70,000. Sheep and cattle-rearing are the chief occupations of the population ; but wheat, oats, barley, and potatoes are grown. Gold has been lately discovered in this colony. The principal towns are *Melbourne*, *Geelong*, and *Portland*.

SOUTH AUSTRALIA.

Boundaries and Extent.—*S. Australia* comprises all that part of Australia extending from lat. 26° S. to the S. coast of the continent, between long. 132° and 141° E. Its area is 300,000 square miles.

Natural Features, Climate, &c.—The coast line is more indented than in any other part of Australia; *Spencer's* and *St. Vincent's Gulfs*, with *Yorke Peninsula*, and *Kangaroo Island*, being within the limits of this territory. The surface is mostly undulating or level; the hill ranges stretch from N. to S. The *Murray*, which has the lower part of its course in this colony, is the only navigable river.

Small streams are numerous, and the country is pretty well watered. The principal lakes are *Torrens* and *Victoria*. Ponds and creeks are numerous, and a chain of lagoons borders the coast along Encounter Bay in the S.E.

The climate is healthy and much warmer than that of England; frosts are rare in the plains in winter.

Most part of the settled land is on the E. side of *St. Vincent's Gulf*, where about one-third of the surface is estimated to be adapted for agriculture and grazing, one-third covered with scrub or forest, and the rest barren. The hills are interspersed with many fertile valleys, and some good land exists in *Eyre peninsula*.

Sheep and cattle-rearing are less extensively conducted than in Australia generally. Wheat, oats, barley, maize, potatoes, and rye are raised. The vine, olive, and mulberry, oranges, lemons, peaches, pomegranates, and many other fruits, come to perfection, as also tobacco, hops, and indigo. Sarsaparilla, sassafras, and other drugs are indigenous. Timber is plentiful.

Mining is highly important. The chief mineral products are copper from the *Burra-burra* and *Kapunda mines*; and lead from *Glen Osmond*. Small quantities of gold, cobalt, manganese, zinc, quicksilver, and antimony, have been found. Iron is plentiful.

Inhabitants.—The population amounts to 67,000, chiefly emigrants from Great Britain. Germans are also numerous.

DIVISIONS AND TOWNS.—The settled portions of the colony are divided into 11 counties. The chief towns are *Adelaide*, Gawler, and Glenelg.

WESTERN AUSTRALIA.

Boundaries and Extent.—*W. Australia* (formerly *Swan River Colony*) occupies the S.W. angle of Australia, be-

tween lat. 33° and 30° S., and long. 115° and 119° E. The length of the settled district is about 300 miles, the breadth 150 miles.

Natural Features, Climate, &c.—Three parallel mountain ranges traverse the country from S. to N., rising in height from the coast inland. The soil is light and dry, both on the coast and in the interior.

In the middle of the colony are bands of more fertile land, suited for the culture of the vine, olive, and fig, and where sandal-wood and other trees grow abundantly. The principal river is *Swan River*. In the interior are several salt-lakes and pools, but the colony generally is not well watered.

The *climate* is arid, but comparatively healthy. Sheep-rearing has not been successful, but horses and cattle thrive well. Iron, lead, mercury, and zinc are found.

Inhabitants.—The population amounts only to 4600, exclusively of 1500 natives. The *chief towns* are *Perth*, *Freemantle*, and *Albany*.

VAN DIEMEN'S LAND, OR TASMANIA.

Situation, Extent, &c.—*Van Diemen's Land*, or *Tasmania*, is a large island off the S. extremity of Australia, from which it is separated by *Bass's Strait*, and lying between lat. $40^{\circ} 44'$ and $43^{\circ} 91'$ S., and long. $144^{\circ} 38'$ and $148^{\circ} 24'$ E. It is somewhat heart-shaped, and its length and greatest breadth are each about 180 miles. Its area is 27,000 square miles, or about seven-eighths of the size of Ireland.

Natural Features, Climate, &c.—The surface is greatly diversified, but on the whole mountainous. *Benlomond* rises to 4200 feet, and *Wylde's Craig* to 4500 feet in elevation; a chain called the *Western Mountains*, averaging 3500 feet, extends N. to S., enclosing many lakes, and scattered over the island are many isolated peaks from 3000 to 4000 feet in height. The principal *rivers* are the *Derwent* and *Jordan* flowing S.E., and the *Tamar* on the N.

The coasts are greatly indented, especially in the S.E., in which

quarter are *Storm*, *Norfolk*, and *Ralph Bays*, with *Brune* and *Maria Islands*, and *Furneaux* and *King's Islands* on the N., and *Tasman* and *Forestier's peninsulas*. The other inlets are *Ports Dalrymple* and *Sorrell* on the N., and *Port Davey* and *Macquarrie Harbour* on the W. coasts. Some rich flats extend along the rivers, but the country is mostly high, undulating, and with a soil not so fertile as in some parts of Australia.

The *climate* is more equable than in Australia. Barley, oats, wheat, and potatoes arrive at perfection, and the fruits of N. Europe are cultivated. Sheep thrive well, and *wool*, as in Australia, is the chief *export*. Ship-building is actively carried on at Hobart Town.

Inhabitants.—The population amounts to 70,000, of whom a large proportion are convicts.

DIVISIONS AND TOWNS.—The settled part of the island is divided into 11 counties. The *chief towns* are *Hobart Town* and *Launceston*.

The convict stations are now almost wholly confined to *Maria Island* and *Tasman peninsula*.

NORFOLK ISLAND, in the open expanse of the Pacific, is annexed to the government of Van Diemen's Land. In its centre is *Mount Pitt*. The island is well watered and fertile. Its climate is healthy. It is used as a penal colony for the most heavily-sentenced British convicts.

Religion and Government.—The Australian colonies constitute six dioceses of the English Colonial Church, forming the bishoprics of Sydney (the metropolitan see), Newcastle, Tasmania, Adelaide, Melbourne, and W. Australia. Each colony has its governor or lieutenant-governor, and a legislative council. The governor of N. S. Wales ranks as governor-general of all the British possessions in Australasia.

NEW GUINEA AND ADJACENT ISLANDS.

The remaining countries of Australasia, comprising *New Guinea* and the *Louisade Archipelago*, and various other islands, do not require any detailed description.

New Guinea, or *Papua*, is supposed to contain an area of 200,000 square miles, but it is wholly unknown, even its coasts having been only partially explored by Europeans. The country inland has been observed to rise into mountain chains of considerable height, and the surface appears to be covered with fine timber. The productions comprise birds of paradise, gold, and pearls.

The inhabitants are partly *Malays*, and partly a negro race, which extends into Australia, and has been termed the *Papuan negro*.

The *Louisade Archipelago*, to the S.E. of Papua, comprises the islands D'Entrecasteaux, Jurian, St. Aignan, Rossell, &c., the inhabitants of which are of the Papuan race.

New Britain consists mainly of two large, populous, and wooded islands.

New Ireland lies further to the N.E. ; near its N.W. extremity is *New Hanover*, and further W. the *Admiralty Islands*.

The *Solomon Islands* extend in a N.W. and S.E. direction. The principal islands are Bougainville, Choisent, and Isabel.

The *Queen Charlotte Islands* lie to the S.E. of the Solomon Islands. The largest is Santa Cruz.

Further to the S. are the *New Hebrides*, which comprise the islands of Espiritu Santo, Mallicollo, Sandwich, Erromango, Tanna, &c.

New Caledonia, situated between the parallels of 20° and 22° 30' S., is 220 miles in length and 30 in breadth. The surface rises to the height of 8000 feet in the centre. At its S.E. extremity is the *Isle of Pines*.

POLYNESIA.

This division of the globe includes the numerous islands scattered over the *Pacific Ocean*, and comprehends a belt chiefly within 30° each side of the equator, and from long. 135° E. to 135° W. Including New Zealand, the boundary extends to lat. 47° S.

NEW ZEALAND.

Situation and Extent.—*New Zealand* consists of a chain of three islands, with smaller islands in the *Pacific Ocean*, between lat. 34° and 47° S., and long. 166° and 178° E. The two principal islands extend from N.E. to S.W. in an elongated, irregular shape. The length of both is 1163 miles, the mean breadth 140 miles. Their area is 95,000 square miles, nearly the extent of Great Britain.

New Ulster is separated from *New Munster* by *Cook's Strait*; and *New Leinster* is separated from *New Munster* by *Foveaux Strait*.

Natural Features, Climate, &c.—These islands are of volcanic formation. The surface is mountainous, and a chain of high-peaked, snow-clad mountains intersects *New Munster* from N.E. to S.W. There are several extinct, and some active volcanoes. *Mount Egmont* in *New Ulster* has an elevation of 8840 feet. The soil on the table-lands and in the valleys and near the coasts is fertile, and the surface is well wooded.

The *climate* of *New Zealand* resembles that of *England* in temperature, but it is moister; snow rarely falls, heavy rains and high gales are frequent, but there is no rainy season. There are several inland lakes, and springs and rivers are abundant. Harbours are good and numerous.

Natural Productions, &c.—The principal *minerals* are copper, manganese, and coal. The *vegetable products* are flax, the potato, the *kauri pine*, and various timber trees. Wheat and other grains introduced by the colonists are very productive, and grazing grounds afford pasture during the whole of the year. There are no indigenous quadrupeds.

Inhabitants.—The population consists of about 20,000 colonists, and 110,000 aborigines. The natives are a tall, well-made, active, and intelligent race of the *Malay* family.

DIVISIONS AND TOWNS.—The principal British settlements are *Auckland*, the capital, *New Plymouth*, *Wanganui*, *Wellington* (Port *Nicholson*), on the W. coast of *New Ulster*; *Nelson* (*Tasman's Bay*) and *Otago*, on *New Munster*.

The *Canterbury settlement*, on the S.E. coast of *New Munster*, contains the towns of *Lyttelton* and *Christchurch*.

Religion and Government.—The colony is a bishop's see. The government is vested in a governor and colonial council.

The *Auckland Islands* consist of a group of one large and several smaller islands in the *S. Pacific Ocean*. The largest island is about 30 miles long, and 15 miles broad, has two good harbours, and is covered with the richest vegetation, and is a central whaling station.

The *Chatham Islands* consist of three islands, of which the largest is 90 miles in circumference. The coasts are rocky; and the products are similar to those of *New Zealand*.

THE SMALLER ISLANDS OF POLYNESIA.

The smaller islands of Polynesia are scattered irregularly, and at long intervals apart, over the immense expanse of the Pacific Ocean. Their whole superficial extent (exclusive of New Zealand) does not exceed 40,000 square miles.

The greater number of them are comprehended within the ten following groups, three of which lie to the N., and seven to the S., of the equator:—The *Sandwich Islands*, the *Caroline Islands*, and the *Ladrone* or *Marianne Islands*, to the N. of the equator; the *Fejee Islands*, the *Friendly Islands*, the *Navigator's Islands*, *Cooke's* or *Hervey's Islands*, the *Society Islands*, the *Low Archipelago*, and the *Marquesas*, all in the S. hemisphere.

Natural Features, Climate, &c.—The smaller islands of Polynesia are divided into two classes,—the *mountainous* islands, which are mostly of volcanic formation; and the *coral* islands, which are low reefs, only raised a few feet above the level of the sea.

From the great predominance of ocean, the temperature of Polynesia is comparatively moderate, the *climate* delightful and salubrious. Thunder storms and water spouts are common. Hurricanes are rare, earthquakes slight and not frequent. The bread fruit, peculiar to this region, the cocoa, banana, plantain, banyan, sugar-cane, cotton plant, and yam, are indigenous. The islands are all remarkably deficient in animals. The natives are a well-formed, active, and intelligent people of the *Malay* and *Papuan* races. The *population* probably does not exceed one million or one million and a half.

The *Sandwich Islands* lie in the *N. Pacific Ocean*, mostly between lat. 18° 20', and 22° N., and long. 155° and 160° W. The principal islands are Hawaii (or Owyhee), Mowee, Woahoo, Kawai, and Molokoi. *Honolulu*, the *capital*, on the island Woahoo, is an important station for trade between all commercial nations. Most of the natives are now converted to Christianity.

The *Caroline Islands* extend from lat. 3° 5' to 12° N., and, including the *Pelew* islands, are spread over a space of 2000 miles. The principal groups are those of *Pelew*, *Yap*, *Egoi*, &c. These

islands nominally belong to Spain, but the Spaniards have no settlements upon them.

The *Ladrone*, or *Marianne Islands*, are situated between lat. 13° and 21° N., and 144° and 145° E., and consist of 20 islands, of which only five are inhabited. They are of volcanic origin, densely wooded, and very fertile. The principal islands are Guguan, Rota, and Tinian, on the first of which is the capital town, *St. Ignazio de Agaña*. These islands also belong to Spain.

The *Fejee Islands* form a section of the Friendly Islands, between lat. $15^{\circ} 30'$ and $19^{\circ} 30'$ S., and long. 177° E. and 178° W., comprising 154 islands, of which 65 are inhabited. The principal islands are Kantaou, Ovolau, Ambau, and Muthuatu.

The *Friendly Islands* lie between lat. 13° and 25° S., and long. 172° W., and 177° E. The principal islands are Tacanovs, Ambow, and Tongataboo.

The *Navigator's*, or *Samoan Islands*, in lat. 14° S., and long. 170° W., comprise Pola, Oatooah, Tootooillah, and Rose Islands. They are mostly lofty, of coralline formation, very fertile and populous.

Cooke's or *Hervey's Islands*, lie between lat. 18° and 22° S., and long. 157° and 160° W. The inhabitants are of the *Malay* race, and many of them Christians.

The *Society Islands* lie between lat. 16° and 18° S., and long. 148° and 155° W. The principal islands are Tahiti, Eimeo, Huahine, Raiatea, Bona-bona, Tahaa, and Meura. *Papiete*, the capital of Tahiti, is resorted to by numerous whalers.

The *Low Archipelago* is an extensive series of islands in lat. 20° S., and long. 140° W., and comprises numerous groups from Clermont-Tonnere to Krusenstern Island. Few of them are inhabited. To the S.E. of these are the *Gambier Islands*, *Pitcairn's Island*, and *Easter Island*.

The *Marquesas Islands* lie between lat. 8° and 11° S., and in long. 140° W., comprising 13 islands, the principal being Nukaheeva, 70 miles in circuit. The surface is mountainous, but fertile in the interior. The inhabitants are superior in bodily endowments to those of many other islands in the Pacific, but they are also less civilized. Resolution Bay, in Tahuata, and Port Jarvis, in Roapoa, are the best harbours in these islands.

DESCRIPTION AND USE OF THE TERRESTRIAL GLOBE.

1. The *terrestrial globe* is a representation of the earth on a globular surface, showing the relative situations of the places upon it.

2. The *axis* of the earth is an imaginary line passing through its centre, round which it turns from W. to E. once in twenty-four hours.

This is represented in globes by the wire which passes through them, and on which they turn.

3. The *poles* are the two ends of the axis: one is called the *north* or *arctic*, the other the *south* or *antarctic* pole.

4. The *equator* is a line supposed to be drawn round the middle of the earth, at an equal distance from both poles: it divides the earth into two equal portions called the *northern* and *southern hemispheres*.

The equator when referred to the heavens, is called the *equinoctial*: it is sometimes called the *line*, or *equinoctial line*.

5. *Meridians* are lines drawn from one pole to the other, directly across the equator.

They are so called, because when any of them is, by the motion of the earth, brought directly opposite to the sun, it is mid-day (*meridies*) there. As each place is in succession presented to the sun, the meridians must be considered as indefinite in number. Not to obscure the surface, they are usually drawn only through every 5 or 10 degrees.

The brass circle in which the globe hangs, and which is called the *brazen meridian*, may be made to represent the meridian of any place. It is divided into four parts of 90° each. On one semicircle the degrees are numbered from the equator towards the poles; on the other from the poles to the equator. The former is used in finding the latitude of places, the latter in elevating the globe.

Every circle on the globe is, by geometers, divided into 360 *degrees*. Each degree is subdivided into 60 minutes, and each minute into 60 seconds.

6. *Latitude* is the distance of any place, north or south, from the equator.

The latitude of a place can never exceed 90° , that being the distance of the poles from the equator. It is reckoned by degrees and minutes on the brass meridian, but in maps at the sides.

7. The *longitude* of a place is the distance of the meridian of that place, east or west, from the first meridian.

On globes it is reckoned on the equator ; but in maps, at the top or bottom. Geographers in different countries have fixed upon different places for the *first meridian*. The English reckon from the meridian of Greenwich. The greatest longitude any place can have is 180° , or half the circumference of the globe.

8. *Parallels of latitude* are circles drawn parallel to the equator.

The circles on the globe drawn to represent the parallels of latitude become smaller the further they are distant from the equator ; that representing the parallel of 60° , is only half the size of the equator. In all maps they are the lines drawn from one side to the other.

SECTION I.

PROBLEM 1.

To find the Latitude and Longitude of any place.

Bring the given place to the brass meridian ; then the degree of the meridian directly over it shows the latitude, and the degree of the equator under the meridian shows the longitude.

If the figures increase towards the *right* hand, the longitude is *east* ; if towards the *left*, it is *west*.

EXAMPLES.

Find the latitude and longitude of the following places :—

London.	Calcutta.
Stockholm.	Madras.
Paris.	New York.
Canton.	Rio Janeiro.

PROBLEM II.

The Latitude and Longitude of a place being given to find that place.

Bring the given longitude to the brass meridian ; then under the given latitude marked on the brass meridian is the place required.

EXAMPLES.

Find the places situated in the following latitudes and longitudes:—

48° 23' N.	4° 39' W.
30° 3' N.	31° 21' E.
12° 1' S.	76° 49' W.
15° 55' S.	5° 49' W.

PROBLEM III.

To find the Difference of Latitude between two given places.

Find the latitude of each of the places. If they are both on the same side of the equator take the difference of the two latitudes, and if they are on opposite sides take the sum.

EXAMPLES.

1. What is the difference of latitude between North Cape and Cape Matapan ?
2. Between Tunis and the Cape of Good Hope ?
3. Between Cape Wrath and the Lizard Point ?
4. Between Madrid and Mexico ?

PROBLEM IV.

To find the Difference of Longitude and of Time between two given places.

Find the longitude of each of the places. If they are

both on the same side of the first meridian, take the difference of their longitudes, and if they are on opposite sides take the sum.

The distance of two places can never be greater than half the circumference of the globe, or 180° ; when, therefore, in adding, the sum exceeds that, subtract it from 360° , for the true difference.

Divide the number of degrees by 15 for the answer in hours: if there be a remainder, multiply it by 4 for minutes.

To reduce Hours into Degrees.

Multiply them by 15.

The principle of these rules is this: the sun, in his *apparent* motion round the earth, performs his daily journey of 360° in 24 hours, which is at the rate of 15° in an hour, or 1° in 4 minutes.

EXAMPLES.

1. What is the difference of longitude and time between Newcastle and Moscow?
2. Between Constantinople and Pekin?
3. Between London and Quebec?
4. Bombay and Calcutta? 5. Vera Cruz and Siam?

PROBLEM V.

To find all those places that have the same Latitude with a given place.

1. Bring the given place to the brass meridian, and observe the latitude.
2. Turn the globe round, and all places that pass under the latitude will be those required.

The variety of the seasons, and the difference of the lengths of the days and nights, depending upon the difference of latitude, all places that have the same latitude have their seasons exactly alike, except what difference may arise from the local situation of the place; they have also the days and nights of the same length at the same time; but the hours of the day are different.

EXAMPLES.

1. What places have the same latitude as London? 2. Philadelphia? 3. Quito? 4. St. Helena?

PROBLEM VI.

To find all those places that have the same Longitude with a given place.

Bring the given place to the brass meridian, and mark all the places then under the meridian, for the answer required.

All places that have the same longitude have noon and midnight at the same time : the hours of the day also correspond.

EXAMPLES.

1. What places have nearly the same longitude as London? 2. Genoa? 3. St. Petersburg? 4. Pekin?

SECTION II.

DEFINITIONS.

1. The *horizon* is either *rational* or *sensible*.
2. The *rational horizon* is a great circle, dividing the upper from the lower hemisphere.
3. The *sensible horizon* is that circle which is the boundary of our sight, or which separates the visible from the invisible portion of the earth's surface.

The sensible horizon increases in proportion to the elevation of the spectator ; thus a person at the top of a mountain has a more extensive prospect than a person at the bottom. The horizon of a place varies according to its latitude and longitude.

The horizon, on the globe, is a circular flat piece of wood, which sustains the globe, and which represents the rational horizon. It contains several circles : the innermost is marked with the points of the mariner's compass ; the next exhibits the twelve signs of the zodiac ; beyond which is a calendar shewing the months and days of the months, corresponding with the signs and their respective degrees ; these show the sun's place in the ecliptic, called the *sun's longitude*, for any given day.

4. The *zenith* is that point in the heavens directly over our heads, and is at an equal distance from all points of the horizon.

5. The *nadir* is that point in the heavens opposite the zenith, and is directly under our feet.

The zenith and nadir are the poles of the horizon, being each 90° from it.

The *quadrant of altitude* is a thin slip of brass or other material, divided into 90° , and is used to measure the distance of places, altitudes of the sun or stars, &c.

6. *Antæci* are those who live under the same meridian but on different sides of the equator, and at equal distances from it ; or they are those that have the same longitude but opposite latitudes.

The appearances to the antæci are these. They have the same hours, but contrary seasons, at the same time : thus when it is noon to the one it is noon to the other, and when it is summer with the one it is winter with the other. The days of one are equal to the nights of the other ; and the nights of the one to the days of the other.

Those who live at the equator have no antæci.

7. *Periæci* are those who live under opposite meridians, but on the same side of the equator, and at equal distances from it ; or they are those who have the same latitude but opposite longitudes.

The appearances to the periæci are these. The hours of the day, though nominally the same, are really contrary ; for when it is noon with the one it is midnight with the other ; and when it is two in the morning with the one, it is two in the afternoon with the other, &c.

They have the same seasons of the year at the same time.

The length of the day or night at any place is always the same as it is to the periæci of that place.

Those who live at the poles have no periæci.

8. The *Antipodes* are those who live diametrically oppo-

site to each other; or they are those who have both opposite latitudes and opposite longitudes.

A line, supposed to be drawn from any place through the centre of the earth, and continued to the opposite side, will point out the antipodes of that place. The north and south poles are antipodes to each other.

The appearances to the antipodes are these. The hours of the day are contrary, it being noon to one when it is midnight to the other.

They have contrary seasons at the same time.

The days of the one are equal to the nights of the other; hence, the shortest day to the one is the longest day to the other. The sun and stars rise to the one when they set to the other, all the year round,—for they have the same horizon; but the zenith to the one is the nadir to the other.

PROBLEM VII.

To find the Antæci of any given place.

Bring the given place to the brass meridian; and having found its latitude, count as many degrees from the equator towards the contrary pole, and the point thus arrived at will be the antæci required.

EXAMPLES.

Required the antæci of the following places:—

- | | |
|------------|-----------------------|
| 1. Malta. | 3. Quebec. |
| 2. Potosi. | 4. Van Diemen's Land. |

PROBLEM VIII.

To find the Periæci of any given place.

Bring the given place to the brass meridian, and set the index to 12. Turn the globe till the index points to the other 12; that place below the meridian whose latitude is equal to that of the given place shows the periæci required.

EXAMPLES.

1. What place has its inhabitants the periæci of Newcastle-upon-Tyne?

2. What place has its inhabitants the periæci of Quito ?
3. Required the periæci of the following places :—Philadelphia, Sandwich Islands.

PROBLEM IX.

To find the Antipodes of any place.

Find the antæci of the given place, and the periæci of this will be the antipodes of the first place ; or, bring the given place to any part of the horizon, and the place at the opposite point of the horizon will be the antipodes.

EXAMPLES.

1. What place is that the inhabitants of which are the antipodes to Pekin ?
2. What are the antipodes of London ?
3. What are the antipodes of Madrid ?
4. Of Sierra Leone ?

PROBLEM X.

To elevate the Globe for the Latitude of any place.

Elevate the pole, which is of the same name with the latitude, as many degrees as are equal to it, and bring the given place to the brass meridian.

When the globe is rectified for the latitude of any place, that place is in the zenith, and the wooden horizon represents the rational horizon of the place.

EXAMPLES.

1. Elevate the globe for Lisbon.
2. Elevate the globe for the Cape of Good Hope.

PROBLEM XI.

To find the Distance between two places.

CASE I.—*When the distance is less than 90°.*

1. Lay the quadrant of altitude over both the places, so that the division marked 0 may be on one of the places ; then the degree cut by the other place will show the distance in degrees.

2. Multiply these degrees by $69\frac{1}{2}$, and the product will be the distance in English miles.

CASE II.—*When the distance is greater than 90° .*

1. Find the antipodes of one of the places, and by Case I. measure the distance between it and the other.

2. Subtract this from 180, and the remainder will be the whole distance required.

EXAMPLES.

1. Required, the distance between London and Copenhagen.
2. Between Lisbon and Constantinople.
3. What is the length of Europe from Cape St. Vincent in the west to the Ural mountains in the east ?
4. What is the distance between Panama, in America, and Manilla, one of the Philippine islands ?

SECTION III.

DEFINITION.

The *horary*, or *hour* circles, are small circles on the globe, placed at the N. and S. poles, having the hours of the day marked upon them, with an index to each.

THE TIME OF DIFFERENT PLACES COMPARED.

The earth, turning on its axis from *west* to *east*, causes a different part of its surface to be successively presented to the sun. When the meridian of a place is directly opposite the sun, it is noon to all places on that meridian. The meridians that lie to the east will come opposite to the sun before those that lie to the west; and hence the people will have noon so much sooner,—the hours of the day will be proportionably advanced.

The earth, taking 24 hours to turn round on its axis, the rate at which it turns may be found by dividing 360 (the number of degrees in the circumference of the globe) by 24: the quotient, 15, is the number of degrees the earth turns in an hour. Thus a place that lies 15° to the east, will have noon one hour sooner; if it lie 30° or 45° , it will have noon two or three hours sooner; and so on in the

same proportion. Places that lie 15° , 30° , or 45° to the W., will have noon one, two, or three hours later ; and so on in proportion.

PROBLEM XII.

The Hour being given at any place, to find what Hour it is in any other part of the World.

By the Globe.—1. Bring the place, at which the time is given, to the meridian, and set the index to the given hour.

2. Turn the globe till the other place comes to the meridian, and the index will show the time required.

By Calculation.—Find the difference of longitude between the two places, and reduce it to time.

Add this difference of time to the given hour, if the place at which the time is required lie to the east ; but subtract it, if it lie to the west.

1. If, in adding, the sum is greater than 12, take 12 away, and change the name from morning to afternoon hours, or *vice versâ*.

2. If, in subtracting, the difference of time be greater than the given hour, add 12 to the given hour, and change the name.

3. By this problem, the longitude of places is determined ; for if by astronomical observation, or any other means, it can be known what hour it is at London, and at the place whose longitude is to be determined, this difference of time, reduced to degrees, will give the longitude of that place, and which will be east or west according as the time is sooner or later.

EXAMPLES.

1. What hour is it at Boston, in America, when it is 3 P.M. at London ?

2. What is the hour at Pekin when it is 9 A.M. at Lisbon ?

3. When it is 4 A.M. at Geneva, what time is it at Quito ?

4. When it is 7 A.M. at Calcutta, what time is it at Cayenne ?

PROBLEM XIII.

Having the Hour given at any place, to find where it is Noon.

By the Globe.—Bring the given place to the meridian,

and set the index to the given hour. Turn the globe till the index points to 12 at noon, and the places then under the meridian are those required.

By Calculation.—Reduce the number of hours between the given time and noon into degrees, and it will be the difference of longitude between the places.

When the given time is in the morning, the place where it is noon will lie so many degrees to the eastward: hence the difference of longitude must be added to the longitude of the given place, if it be E. ; but subtracted from it if it be W.

When the hour is in the evening, the places where it is noon will lie to the westward of the given place: hence the difference of longitude must be added, if the longitude of the given place be W., but subtracted if it be E. ; and the sum, or difference, will be the longitude of the places required.

1. If, in subtracting, the difference of longitude be greater than the longitude of the given place, subtract the latter from the former, and the remainder of a *contrary name* will be the longitude required.

2. If, in adding, the sum exceeds 180° , subtract it from 360° , and the remainder will be the required longitude, but of a *contrary name*.

3. By this problem, it may also be found where it is any other given hour; only, instead of turning the globe till the index points to 12, turn it till it points to the given hour.

EXAMPLES.

1. Where is it noon, when it is 5 P.M. at Paris ?
2. Where is it noon, when it is 9 A.M. at Newcastle ?
3. Being noon at London, where is it $\frac{1}{2}$ past 8 A.M. ?

AN OUTLINE OF ANCIENT GEOGRAPHY.

GREECE.

Greece is bounded on the north by the *Cambunian Mountains*, which separate it from Macedonia ; on the south and east by the *Ægean*, on the west by the *Ionian Sea*. It is divided into (1) *Northern Greece*, from the north boundary to the chain of *Æta* and *Pindus*, between the *Ambracian Gulf* west, and the *Maliac* east ; (2) *Central Greece*, or *Hellas*, down to the *Isthmus of Corinth* ; and (3) the southern peninsula, or *Peloponnesus*.

Northern Greece comprises two countries ; *Thessaly* east, *Epirus* west.

1. *Thessaly*, the largest of the Grecian countries. Cities, Larissa, Pharsalus, Pheræ, Magnesia, &c. Mountain, Olympus, residence of the gods.

2. *Epirus*, the next largest. Cities, Ambracia, Dodona. Central Greece, or *Hellas*, comprises nine countries.

1. *Attica*, a foreland, stretching towards the south-east. City, Athens, with the harbours Piræus, Phalereus, and Munychius ; hamlets, Marathon, Eleusis, Decelæa, &c.

2. *Megaris*, close to the Isthmus of Corinth. The smallest of the Grecian countries. City, Megara.

3. *Bœotia* contained the greatest number of cities. Of these the most important was *Thebes*. The others were Plataea, Tanagra, Thespiae, Chæronæa, Lebadea, Leuctra, and Orchomenus. Mountains, Helicon, Cythëron, &c.

4. *Phocis*. Cities, Delphi, with the celebrated oracle of Apollo, and Elatæa. Mountain, Parnassus.

5, 6. The two countries called *Locris*. The eastern, the territory of the Locri Opuntii and Epicnemidii. City, Opus ; pass, Thermopylæ. The western, on the Corinthian gulf, called Locri Ozolæ. Cities, Naupactus and Amphissa.

and set the index to the given hour.

the index points to 12 at noon, and the meridian are those required. *philochicum, Actium.*

By Calculation.—Reduce the given time and noon into the difference of longitude between *countries. Cities, Mantinēa, Tegea, Megalopolis, as a common*

When the given time is in *parta and Sellasia.* will lie so many degrees *Laconia. City, Messene. Fron-* longitude must be added *and Ira, Pylos (Navarino) and Methone.* E. ; but subtracted for *small territory of Triphylia on the*

When the hour is *the* lie to the westward *Cyllene, Pylus, and Olympia.* tude must be added *the east. Cities, Argos, Mycenæ, Epi-* subtracted if *tude of the p.* comprises the north coast (originally Ionia).

1. If, in *longitude* *Patræ, and Pellene.*

the *the rer* *Sicyon. City, Sicyon.*

2. *Corinth, adjoining the isthmus which connects Pello-* the *the* *with the mainland. City, Corinth.*

ISLANDS.

The Greek islands may be divided into three classes.

(1) Those which lie immediately off the coasts ; (2) those which are collected in groups ; and (3) those which lie separate in the open sea.

I. Islands off the coasts :—Off the west coast in the Ionian sea, *Corcyra* (Corfu), opposite Epirus. City, *Corcyra* (Corfu).

Leucadia (Santa Maura). City, *Leucas*.

Cephalonia, or *Same*, with the cities of *Same* and *Cephalonia*.

Ithaca (Teaki). *Zacynthus* (Zante), opposite Elis.

Off the south coast : *Cythera* (Cerigo), with a town of the same name.

the east coast: in the Saronic gulf, *Ægina* and

Bœotia, *Eubœa*, the most extensive of all.

Chalcis, *Eretria*. Off *Thessaly*, *Scyathus*

Further north, *Thasus*, *Imbrus*, *Samo-*

nos.

Islands of islands in the *Ægean sea*:—(1) The

, comprising the western islands of the Archi-

, of which the most important are *Andros* (*Andro*),

os, *Paros* (*Paro*), *Naxos* (*Naxia*), *Melos* (*Milo*), all

with cities of the same names. (2) The *Sporades*, con-
taining the eastern islands of the Archipelago.

III. The more extensive separate islands:—(1) *Crete*
(*Candia*). Cities, *Cydonia*, *Gortyna*, *Gnossus*. (2) *Cy-*
prus. Cities, *Salamis*, *Paphos*.

ITALY.

Italy constitutes a peninsula, bounded on the north by the Alps, on the west and south by the Mediterranean, and on the east by the Adriatic sea. It is divided into (1) *Upper Italy*, from the Alps to the small rivers of *Rubicon* and *Macra*; (2) into *Central Italy*, from the *Rubicon* and *Macra* down to the *Silarus* and *Frento*; and (3) into *Lower Italy*, from those rivers to the southern land's end.

I. *Upper Italy* comprises the two countries, *Gallia Cisalpina* and *Liguria*. Cities, *Tergeste*, *Aquileia*, *Pata-vium* (*Padua*), *Vincentia*, *Verona*, *Mantua*, *Cremona*, *Brixia* (*Brescia*), *Mediolanum* (*Milan*), *Ticinum* (*Pavia*), and *Augusta Taurinorum* (*Turin*), *Ravenna*, *Bononia* (*Bo-logna*), *Mutina* (*Modena*), *Parma*, *Placentia* (*Piacenza*).

Rivers: *Padus* (*Po*), with its tributaries, the *Duria* (*Durance*), *Ticinus* (*Tessino*), *Trebia*, &c.

Liguria. Cities, *Genua*, *Nicæa* (*Nice*), and *Asta* (*Asti*).

II. Central Italy comprises six countries: Etruria, Latium, and Campania on the west; Umbria, Picenum, and Samnium on the east.

1. *Etruria* was bounded on the north by the Macra, on the south and east by the Tiberis. Main river, the Arnus (Arno). Cities, *Pisæ* (Pisa), *Florentia* (Florence), *Fæsulæ* (Fiesole), *Vollaterræ* (Volterra), *Volsinû* (Bolsena), *Clusium* (Chiusi), *Cortona*, *Perusia* (Perugia), near which is the *Lacus Thrasimēnus* (Lago di Perugia), *Falerii* (Falari), and *Veii*.

2. *Latium*, from the Tiber to the Liris. Cities: Rome, Tiber (Tivoli), Tusculum, Alba Longa, Ostia, Lavinium, Antium, Gabii, Velitræ, Fundi, Terracina, Arpinum, Minturnæ, Formiæ. Around the Latins dwelt various small tribes, such as the Hernici, Sabini, Æqui, and Marsi eastward; others southward, such as the Volsci, Rutuli, and Aurunci.

Rivers: Anio (Teverone) and Allia, which fall into the Tiber.

3. *Campania*, the country lying between the Liris north, and the Silarus south. Cities: Capua, Linternum, Cumæ, Neapolis (Naples), Herculaneum, Pompeii, Nola, Salernum, &c. Mountain, Vesuvius.

The three eastern countries of Italy are as follows:—

1. *Umbria* is bounded north by the Rubicon, south by the Æsis, and by the Nar, dividing it from the Sabine territory. Cities, Ariminum (Rimini), Spoletium (Spoleto), &c. River, Metaurus.

2. *Picenum*; bounded on the N. by the Æsis, W. by the chain of the central Apennines, and S. by the river Matrinus. Cities, Ancona and Asculum Picenum (Ascoli).

3. *Samnium*, from the Aternus north, to the Frento south. Cities, Allifæ, Beneventum (Benevento), and Caudio, Furcæ Caudinæ. Around the Samnites dwelt other

tribes, as the Marrucini and Peligni in the north, the Frentani in the east, and the Hirpini in the south.

III. Lower Italy comprised four countries; Lucania and Bruttium on the western side, Apulia and Calabria on the eastern.

1. Lucania. Boundaries : north the Silārus, south the Laus. Cities, Poestum or Posidonia (Pesto), and Helia or Velia. River, Siris.

2. Bruttium, from the river Laus to the southern land's end at Rhegium. Cities, Consentia (Cosenza) and Marmertum.

3. Apulia, from the Frento to the beginning of the eastern tongue of land. Cities, Sipontum, Luceria, Barium, Cannæ, and Venusia. River, Aufidus.

4. Calabria, the smaller eastern tongue of land, which terminates in the promontory of Iapygium. Cities, Brundisium (Brindisi) and Callipolis (Gallipoli).

Three large islands are also reckoned as belonging to Italy : they are Sicily, Sardinia, and Corsica.

1. Sicily, also called Trinacria, from having three promontories, Pelorum at the east, Pachynus at the south, and Lilybæum at the west. Cities, Zancle, afterwards called Messana, Naxus, Syracuse, Hybla, Leontini, Catāna, Gela, Acræ, Casmenæ, Himëra, Selinus, Agrigentum, Lilybæum (Marsala). Mountain, Ætna.

Smaller islands off the coast of Sicily : Æolian or Vulcanian to the north, Ægatian to the west, and Melita (Malta) and Gaulos to the south.

2. Sardinia, north-west of Sicily. Chief town, Caralis (Cagliari).

3. Corsica. Chief town, Urcinium (Ajaccio).

ASIA.

Asia may be divided into N. Asia, comprising the countries N. of the Altai; Central Asia, or the countries between the Altai and Taurus; and S. Asia, or the lands S. of the Taurus.

1. Northern Asia was almost, though not entirely, unknown to the ancients.

2. Central Asia, comprising Scythia and Sarmatia Asiatica (Great Tartary and Mongolia), was a mere country of pasture inhabited by nomad tribes.

3. Southern Asia was divided into, 1st, S.W. Asia, from the Mediterranean to the Indus; 2ndly, S.E. Asia, from the Indus to the Eastern Ocean.

S.W. Asia is again subdivided into the countries, 1st, on this side the Euphrates; 2ndly, between the Tigris and Euphrates; 3rdly, between the Tigris and the Indus.

COUNTRIES ON THIS SIDE THE EUPHRATES.

ASIA MINOR.

Asia Minor comprises the countries between the Euxine and Mediterranean seas. It is divided into *three northern* countries, along the shore of the Pontus Euxinus: (1) Bithynia, (2) Paphlagonia, and (3) Pontus. *Three* on the *eastern* coast: *those of the Ægean*, (1) Mysia, (2) Lydia, (3) Caria. *Three* along the shores of the Mediterranean: (1) Lycia, (2) Pamphylia and Pisidia, and (3) Cilicia. And *three central*: (1) Galatia, (2) Phrygia, and (3) Cappadocia.

I. Three northern countries, *Bithynia*, *Paphlagonia*, and *Pontus*.

1. Bithynia. Cities, Prusa (Brusa), Nicæa (Isnic). *Mountain*, Olympus.

2. Paphlagonia. City, Sinōpe (Sinub).

3. Pontus, separated from Paphlagonia by the river Halys. Cities, Amasea, Zele, Trapezus.

II. Three provinces on the eastern coast of the Ægean, Mysia, Lydia, and Caria.

1. *Mysia*, which contained the Greek colony of *Æolia*. Cities, Troy, Adramyttium, Pergamus (Bergamo), Cumæ. Rivers, Xanthus, Simois, Granicus. Promontories, Rhæteum and Sigæum.

2. *Lydia*, which contained the Greek colony of *Ionia*. Towns, Ephesus, Phocæa, Smyrna (Ismur), Magnesia, Sardis, Philadelphia. Mountain, Mycæle.

3. *Caria*, which contained the Greek colony of Doris. Towns, Miletus, Cnidus.

The principal islands off the western coast of Asia Minor were, off the coast of *Mysia*, Cyzicus, Tenedos, *Lesbos*, chief town Mitylène, and the Arginusæ; off *Lydia*, *Samos* and Chios; off *Caria*, *Rhodes*, Cos, and Patmos. In the south, Cyprus.

III. Three provinces on the shores of the Mediterranean, Lycia, Pamphylia and Pisidia, and Cilicia.

1. Lycia. City, Myra.

2. Pamphylia and Pisidia. Towns, Perga, Side, Coracesium, Selga. River, Eurymedon.

3. Cilicia. Towns, Selinus, Seleucia, *Tarsus*, Issus.

IV. Three central provinces: (1) Galatia, (2) Phrygia, (3) Cappadocia.

1. Galatia. Towns, Gordium, Ancyra.

2. Phrygia, between Lydia and Cappadocia. The plain of Ipsus.

3. Cappadocia, between Pontus and Cilicia, having E. the Euphrates and W. the Halys. The N.E. part of Cappadocia, on the W. bank of the Euphrates, was called *Armenia Minor*. Towns, Sebaste, Nicopolis, and the fortress of Novus.

SYRIA, together with Phœnicia and Palestine. 1. *Syria*, properly so called. Cities, Damascus, Palmyra. 2. *Phœnicia*, a mountainous tract, extending along the shore. Mountains, Libanus and Antilibanus. Cities, Tyre, Sidon, Byblus. 3. *Palestine*. Mountains, Carmel, Tabor. River, Jordan. Divisions of Palestine: first, according to the twelve tribes; afterwards into the provinces of Judæa, capital Jerusalem; of Samaria, cities, Samaria, Sichem; and of Galilee.

ARABIA, abounding in sandy deserts, and almost entirely occupied by nomad tribes. Its S. and E. coasts, however, rendered it a most important seat of trade.

In the N. was, *Arabia Petræa*, so called from the town of Petra. Inland, *Arabia Deserta*. In the S., *Arabia Felix*; rich, both in natural productions, and also as being the ancient emporium for the merchandise of India.

COUNTRIES BETWEEN THE EUPHRATES AND TIGRIS.

MESOPOTAMIA; in the interior a sterile table-land, entirely occupied by nomad tribes. Cities on the Euphrates: Thapsacus, Circesium, Cunaxa; in the N., Zoba or Nisibis.

ARMENIA, N. of Mesopotamia. City, Tigranocerta. Rivers, Cyrus, Araxes, Phasis.

BABYLONIA, the S. part of Mesopotamia, from which it was separated by the Median wall. Cities, Babylon, on the Euphrates, Borsippa.

COUNTRIES BETWEEN THE TIGRIS AND THE INDUS.

ASSYRIA. Cities, Nineveh (Ninus), Arbela.

The name of Assyria is also frequently taken by the Greeks in a wider acceptance, as comprising both Mesopotamia and Babylonia.

SUSIANA. City, Susa, on the river Choaspes.

PERSIS. Rivers, the Cyrus and Araxes. City, Persepolis.

The name of Persis was, in ancient as well as in modern geography, taken in a more extensive sense, as comprising all the countries between the Tigris and the Indus, with the exception of Assyria. In this sense it contains three countries towards the S., *Persis*, properly so called, *Carmania*, *Gedrosia*: three central countries, *Media*, *Aria*, *Arachosia*: and three countries towards the N., *Parthia* and *Hyrcania*, *Bactria*, *Sogdiana*.

AFRICA.

AFRICA, called *Libya* by the ancients, was but little known by them, except the parts on the coast of the Mediterranean.

It was divided into *Mauritania* (Morocco and Fez), *Numidia* (Algiers), *Africa Propria* (Tunis), *Libya*, *Ægyptus* (Egypt), divided into *Ægyptus Inferior*, on the coast, and *Ægyptus Superior*, towards the interior of Africa. Below Numidia was *Gætulia*, and below Egypt *Æthiopia*.

Mauritania, on the N.W. coast. Towns, Tingis, Sala, Siga. Mountain, *Atlas* (which gives name to the Atlantic Ocean).

Numidia, on the E. of Mauritania, was occupied by two principal nations, the *Massyli* and the *Massæsi*. Capital, *Cirta*. Mountain, Pappua.

Africa Propria, E. of Numidia. Towns, *Carthage* (with its citadel *Byrsa*), *Utica*, *Tunetum* (Tunis), *Hadrumetum*, *Thapsus*, *Zama*, *Capsa*.

Libya. Towns, *Cyrene*, *Apollonia*.

Ægyptus. 1. *Inferior*. Capital, *Alexandria*, *Nicopolis* (*Aboukir*), *Sais*, *Heliopolis* or *On*, *Babylon*, *Mempbis*. River, the Nile. 2. *Superior*. Towns, *Thebes* and *Ptolemais*.

GEOGRAPHICAL OUTLINE OF THE ROMAN EMPIRE
AND PROVINCES, AND OTHER COUNTRIES CON-
NECTED WITH IT BY WAR OR COMMERCE.

The ordinary boundaries of the Roman empire were, in Europe, the two great rivers of the Rhine and Danube; in Asia, the Euphrates and the sandy desert of Syria; in Africa likewise the sandy regions. It thus included the fairest portions of the earth, surrounding the Mediterranean Sea.

European Countries.—I. *Hispania* (Spain), bounded on the E. by the Pyrenees, on the S., N. and W. by the sea, was divided into three provinces: 1. *Lusitania*. Principal tribes: Lusitani, Turdetani; 2. *Boetica*. Principal tribes: Turduli, Bastuli. Principal towns: Corduba (Cordova), Hispalis (Seville), Gades (Cadiz), Munda; 3. *Tarraconensis* included all the remainder of Spain. Principal tribes: Calloeci, Astures, Cantabri, Vascones, in the N.; Celtiberi, Carpetani, Ilergetes, in the interior; Indigetes, Cosetani, &c. on the Mediterranean. Chief towns: Tarraco, Carthago Nova (Carthage), Saguntum. Principal rivers: Minus (Minho), Durus (Douro), Tagus (Tejo), Anas (Guadiana), Bætis (Guadalquivir), and Iberus (Ebro).

II. *Transalpine Gaul*.—Boundaries: on the W. the Pyrenees; on the E. the Rhine, and the little river Varus; and on the N. and S. the sea. Principal rivers: the Garumna (Garonne), Liger (Loire), Sequana (Seine), and Scaldis (Scheldt), Rhodanus (Rhône), Mosella (Moselle), and Mosa (Meuse). Divided into four provinces: 1. *Gallia Narbonensis*. Principal tribes: Allobroges, Volcæ, Calyæ; 2. *Gallia Lugdunensis*, or *Celtica*. Principal tribes: Ædui, Lingones, Parisii, Cenomani, &c. Principal towns: Lugdunum (Lyons), Lutetia Parisiorum (Paris); 3. *Gallia Aquitania*. Principal tribes: Aquitani, Pictones, Averni; 4. *Gallia Belgica*. Principal tribes: Nervii, Bellovaci, &c., in the N.; Treviri, Ubii, Sequani, Helvetii, in the interior.

III. *Gallia Cisalpina*, or *Togata* (Lombardy), already described (see p. 253).

IV. *Sicilia*: divided into Syracuse and Lilybæum (see p. 255).

V. *Sardinia* and *Corsica* (see p. 255).

VI. The *Insulæ Britannicæ* (British Islands); but of these only

England and the S. part of Scotland were reduced into a Roman province in the time of Nero, under the name of *Britannia Romana*. Principal rivers : *Tamesis* (Thames) and *Sabrina* (Severn). Cities : *Eboracum* (York), *Londinum* (London). Into Scotland the Romans often penetrated, but without being able completely to conquer it. Ireland was visited by Roman merchants, but never by Roman legions.

VII. The countries S. of the *Danube*, which were subdued under Augustus, and formed into the following provinces :—1. *Vindelicia*. 2. *Rhætia*. 3. *Noricum*. 4. *Pannonia Superior*. 5. *Pannonia Inferior*. 6. *Mœsia Superior*. 7. *Mœsia Inferior*.

VIII. *Illyricum*, in its most extensive signification, comprised all the provinces S. of the *Danube*, together with *Rhætia* and *Dalmatia* : but *Illyricum Proper* comprehended only the lands along the coast of the *Adriatic*, from *Rhætia* in Italy to the river *Drinus*, and easterly to the *Savus*.

IX. *Macedonia*.—Boundaries : on the N. mount *Scodrus*, on the S. the *Cambunian mountains*, on the W. the *Adriatic*, and on the E. the *Ægean Sea*. Principal tribes : *Pæones* in the N., *Pieres* and *Mygdones* in the S. Principal towns : *Pydna*, *Pella*, *Thessalonica*, *Dyrrhachium*, and *Apollonia*.

X. *Thrace*.—Boundaries : on the N. mount *Hæmus*, on the W. the river *Nestus*, and on the S. and E. the sea. Principal tribes : *Triballi*, *Bessi*, and *Odryseæ*. Cities : *Byzantium*, *Apollonia*, *Beroæa*.

XI. *Achaia* (Greece), see above, p. 251.

XII. *Dacia*.—Boundaries : on the S. the *Danube*, on the W. the *Tibiscus* (Theiss), in the E. the *Hierasus*, in the N. the *Carpathian mountains*. Principal tribe : *Daci*.

The *Asiatic provinces* and the *provinces of Africa* have been already described.

APPENDIX¹.

TOPOGRAPHY CONSIDERED IN A MILITARY POINT OF VIEW.

OF the several branches which constitute the art of war, that of reconnoitring a country is one of the most important, as its result enters into the combination of every military operation.

A reconnoissance of this nature consists, 1st, in obtaining accurate information, by all possible means, as to the nature of all the principal local objects of a country and its resources ; 2nd, in seizing, at a glance, all the advantages and disadvantages afforded by a position, occupied, or to be occupied, either previous to, or during an engagement.

Good maps sometimes suffice to enable a general to form an outline of a plan : but when it is required to regulate the details or particular operations, it is necessary to be well informed as to the nature of the country where this plan is to be put into execution. Consequently, though a thorough knowledge of that part of the country where the campaign is actually carried on may be sufficient for the generality of the officers belonging to the army ; yet, to enable a general to adopt a plan of war, or even only of a campaign, and effectually to counteract the projects of the enemy, it is necessary not only that he should be acquainted with the nature of that part of the country which is occupied, but also with that which it is proposed to occupy, as well as those bordering it in every direction, so that he may be able to adapt his plans beforehand to circumstances, or apply them to the several possible suppositions.

When reconnoitring a country, the chief points which should

¹ From Lieut. Jervis's "Manual of Field Operations."

attract an officer's attention, are the communications, obstacles, resources, and positions.

COMMUNICATIONS.

A high-road is, in most cases, a communication from one town or province to another : it is usually in good order throughout the year, and will almost always allow of two carriages going abreast. High-roads, in France, are generally from thirteen to sixteen yards in breadth ; those in Belgium, from ten to thirteen ; and those in Spain and Germany, from eight to eleven.

A cross-road is a communication from one road to another, or from one village to another. It is usually narrow, and its breadth generally depends upon that of the carts or waggons of the country. In most parts of the continent, cross-roads are almost impracticable during bad weather : from this it results that often a great deal of labour must be expended on such roads, before artillery can be conveyed over them.

Foot-paths are only for men and beasts of burden.

In order to reconnoitre thoroughly a communication, it is requisite to find out where it begins, and where it leads to ; the nature of its soil, whether stony, gravelly, or sandy ; and whether its breadth is variable or always the same. The extreme breadth of field artillery carriages in the English service being six feet five inches, a road should be at least seven feet broad, to allow a file of such carriages to go through it : generally, from three to four yards are required for a file of waggons to march with ease, and from ten to twelve for a double file. The turnings of roads often diminish when they come to bridges and villages, so that the waggons which may have been formed two deep have to march in single rank, and the troops likewise on a smaller front, thereby occasioning delay on the march ; if this circumstance, therefore, should often occur, it must be noticed, otherwise the general, who may have calculated upon the time required for a body of men to arrive, would be disappointed, and his enterprise perhaps fail. When a road is lined with hedges, trees, or ditches, find out their appropriate dimensions, for there are many hedges so thick that they often change a road into a defile ; deep ditches are also very inconvenient, as a column would then have great difficulty in extending itself on the sides of the road ; they may also be made use of to conceal infantry, in order to drive back any attempts the enemy's cavalry might make during a retreat. Trees will break a charge of cavalry, and if any reason whatever prevents

an army from marching on the sides of the road, a few trees cut down will also obstruct the enemy.

In Spain, Italy, and Hungary, there are roads which follow the windings of a coast, or of a river, and are bordered on one side by elevated rocks; a few hours' labour will interrupt the passage, either by rolling pieces of rock across, or by blowing up a portion of the road. It is seldom that such roads have not some path overlooking them: information should be taken as to this, for the skirmishers, or even the whole of the infantry, might make use of it, whilst the artillery and cavalry followed the road in the valley.

Inquiry should be made as to the number of rivers or streams the roads cross; what towns or villages they go through, or are in their neighbourhood; whether the turns of the roads, in the mountains, are too sharp to allow of carts, drawn by several animals, being brought that way,—this circumstance is usual enough where oxen are used for draught: there may also be other communications leading to the same place, and not far from it.

Cross-roads which debouch from the main road may be convenient for ambuscades; it should be observed whether it is easy to form new communications.

It is well to calculate the length of roads by hours of march (for it is not always sufficient to know the distance from one point to another), and to ascertain how long troops will be marching this distance, as they cannot go as fast in hilly or marshy country as in flat, dry land. This system is, besides, safer than depending on measures of distance, which vary in all countries; whilst an hour of march is about the same every where.

Foot-paths require to be reconnoitred with a great deal of care, especially in mountains or in forests; for the information obtained from the inhabitants of the country cannot be depended upon. Whether from ignorance, or from private motives, they always pretend that these paths are impracticable: there are few of them passable for men which are not also passable for horses. It is often by means of foot-paths that an active enemy arrives where least expected; a shepherd or a smuggler who is aware of their importance will point them out to the reconnoitring officer.

It should be observed that roads of stony or gravelly bottom are the only ones which are good in all seasons, and that those which are exposed from the south to the north are soon dried; roads that are closed in by hedges and woods, which cross low marshy lands, or follow the base of a chain of mountains, are always in a bad state during rainy weather, thereby requiring more cattle to draw the

carts ; roads which wind along the top of a ridge of hills, where they are easily dried by the wind, are always in good order.

In many countries, rivers afford a better means of communication than roads. It should be noticed, whether the bottom is stony, sandy, or muddy ; if the bottom cannot be seen, information may be obtained from the boatmen or fishermen who frequent it ; they will also be able to tell the depth at any place it may be desirable to know. If the breadth of a river cannot be accurately measured, it should be estimated as nearly as possible. Find out, as accurately as possible, the rapidity of the currents : whether the river is navigable ; from what point and at what season ; the height of its banks ; which side has the highest bank ; whether its approaches are convenient, as well as the communications which lead to them ; whether there are any islands in the river—their size, their cultivation ; whether they afford any protection to troops approaching them. Islands greatly facilitate the passage of large rivers : they divide the river into several branches, which offer less opposition to the formation of bridges than would be found in the entire breadth of the river ; and, as they are generally covered with willows or brushwood, they conceal the landing of the troops required to protect the formation of the bridge.

In many rivers, the bed is often encumbered with rocks and shoals, which sometimes cause great inconvenience : inquiry should be made whether, at these points, there is not some other line of communication.

One of the most important points to be investigated, in the reconnaissance of a river, is the number and kind of boats employed upon it ; and, by careful inquiry into this matter, an intelligent officer will be led to obtain information on many subjects, connected with the navigation of a river, which might otherwise escape his memory.

Barges on the Rhône, Danube, Vistula, Rhine, and other large rivers, are often of one and two hundred tons burthen ; but, from the many shallows which are met with, they are either flat-bottomed, or draw very little water.

Rivers that rise in mountains of any great elevation are often subject to excessive inundations, and have always a rapid current, which makes a serious difference between conveying convoys up or down the stream. Thus a steamer, going down the river Rhône, will make fourteen miles an hour, whilst, going up, it makes but four miles in the hour.

Streams, when wide and deep, are sometimes of great importance, and require as much care as rivers in the reconnaissance. It is par-

particularly necessary to remark the mills that may be situated near them, such as flour-mills, saw-mills, forges, &c. These often make excellent posts, as it is usual to raise dams in order to work the mills, which thus present a double obstacle. It is necessary to find out whether the water can be cut off; whether, in keeping the sluices shut, an inundation above the mill can be occasioned, and to what extent; or if, by opening the sluices, it would be possible to destroy some ford below: it would also be desirable to ascertain whether, by means of a transversal ditch, the valley can be overflowed or the rivulet emptied.

It is requisite to know what country towns or villages are situated near these streams, as it is always in their vicinities that ferries are established.

Bridges, on all rivers of importance, are generally of stone or iron, and, on small streams, of wood. Find out the nature of their approach; their width, depth, and solidity; whether it would be easy to destroy the first, or, at least, destroy the parapets. This last circumstance should be observed, when they are to be defended, as the parapets are useful to an enemy who may wish to force the bridge under cover of the fire from the opposite bank. Ascertain whether the planks of the wooden bridges can be easily removed, or whether they can, at least, be partly destroyed. A system of stone bridges, with the middle arch made of wood, has been adopted for the French frontiers.

It should be inquired whether the debouches of the bridge are convenient; whether its head can be fortified. If the bridge is not isolated, notice should be taken of the street of the town or village leading to it. As the width of this defile may be important, it should be seen to; and inquiry should be made as to whether there is not a ford above or below the bridge, or, at least, the possibility of establishing another means of passage.

On many rivers where there are no fixed bridges, flying-bridges and ferry-boats are found.

It is desirable to know how many men, waggons, and horses a flying-bridge or a ferry-boat can carry at one time; how long they take to cross; and whether the embarkation and debarkation are difficult or convenient.

A river which does not possess either of the above means of passage may perhaps have fords.

Let it be ascertained what the bottom of a ford is composed of. Gravelly is the best; a sandy bottom gives way under the feet, and the troops are often obliged to swim across. What is its depth?

A ford should not be more than from thirty to thirty-six inches in depth for infantry, and forty inches for artillery; though there are many examples of fords having been crossed which were four feet in depth, but, in such cases, there must be hardly any current.

Fords are of great importance, on many occasions, during a war; it is often by means of them that surprises are effected, that the construction of bridges becomes without effect, that a defeated army may be hotly pursued, or an escape made from a victorious enemy. We shall therefore enter into details upon this point, which is an important one, especially for artillery.

In summer, when water is observed to flow rapidly between two sandy banks, a ford may probably be discovered there, though the inhabitants be not aware of its existence: this may be ascertained by sounding, or by a man on horseback. These kinds of fords are newly-formed, and are generally consequent on a hard winter; they are usually unsafe, and of short duration.

Small rivers are generally fordable where they flow into the sea, and often at their junction with another river, because, as they approach their point of junction, they lose part of their rapidity, and deposit sand, gravel, &c., which they have carried along with them: hence the bars which interrupt the navigation of rivers at the entrance of harbours.

When a bridge over a rapid stream has been destroyed, a ford will probably be found below the bridge; in a slow river it will be found above. In the first, the rapidity of the current, forcing through between the arches, hollows out the soil beneath, and, as it runs further down, this impetuosity lessens, and it deposits the sand or mud which it has carried off from under the bridge, and thus forms a ford: in the second case, the bridge stops the weeds, &c., brought down by the river, the soil accumulates, and raises the bottom above the bridge. It should be observed that the fords of sluggish rivers are generally safe and lasting, their banks being almost always of rock or clay, against which the waters have no effect, but their bottom is always of mud.

To render safer the passage of a ford that is frequently made use of, a stake might be fixed on the banks at each end, and a rope fastened across, which would serve as a rail.

The direction of some fords is not perpendicular to the banks, and is sometimes difficult to find: it should therefore be marked out by poles or stakes, to prevent any accidents in case it be required.

Fords in mountainous countries are seldom to be trusted to, for the least rain or melting of snow swells the streams, and the fords

disappear ; and even when the bed of a mountain stream or torrent is dry, it is usually so covered over with large stones as to be often impracticable for artillery and cavalry.

Canals are water-communications, usually found in commercial countries : they are made to connect two navigable rivers together, or along the bank of a river difficult of navigation, or for the purpose of draining a marshy country. Canals are often of great use for the conveyance of military stores or provisions.

When reconnoitring canals, notice should be taken of the breadth of the paths along the banks ; whether the paths are elevated above the level of the canal, and whether the trees along the path present any defence ; whether the canal passes through rocky countries ; whether it is possible to produce an inundation by destroying the locks or cutting the banks ; what kind of barge is employed ; whether the horses, used for the purpose of towing, are numerous.

OBSTACLES.

Forests are of infinite importance in warfare ; they add to the difficulties of ascending mountains, they serve to conceal ambuscades, to screen the march of troops, or support the wings of an army.

What is the extent of the forest ? What roads are there ? and are they fit for artillery ? Are there any lakes or marshes ? Are the ravines marshy ? This often occurs in the forests of champaign countries. Are there any clearings in the forest, and what is their extent ? Does the forest consist of high trees or copse ? Is it sufficiently open for troops to move in, or is there any impenetrable jungle or bush ? Trees will make good *abattis*, and if thickly planted, or much underwooded, cavalry will be prevented from penetrating into the wood.

Woods growing on sandy soil often possess many pools of water.

Are there any villages or large farm-houses within the forest where a convoy or a detachment may pass the night ?

Small woods and copses are often surrounded by ditches, walls, or palisades ; can they be of any use in defending the wood ?

Marshes are generally found in very low lands, or in uncultivated countries. Marshes are of two kinds : the first are of great extent, and of strategical importance ; the second are small swamps, found usually in sandy or heathy lands ; and ignorance of their position often causes great disasters in a battle.

Of what extent are the marshes ? Are they passable, and at what

seasons ! The inhabitants themselves are sometimes ignorant of roads which may be found by a vigilant officer or by accident.

In many countries low lands are laid under water for the purpose of improving the land, or on account of particular crops, as rice : such land is generally very much intersected with small streamlets, which may be made use of for the defence of a position.

Lakes are reconnoitred like other pieces of water ; they are numerous, not only in mountainous countries, but even amidst tracts of sand or heath.

Mountains present a most important subject ; and, though it cannot be treated in this work with the detail which it merits, yet we will endeavour to point out as many of the principal points connected with it as may suffice for ordinary occasions.

A counterfort is that part of a chain of mountains or hills which stands out from it, and is generally perpendicular to the direction of the chain, in the same manner that a counterfort in masonry is to the direction of the wall which it supports. Almost every chain of mountains throws off such counterforts, upon which villages are often situated. They are of great importance in the choice of positions, in a rugged and broken country ; they are its real bastions, since they flank the most inaccessible places.

What is the direction of the chain of mountains ! What roads lead through them ! Are the roads passable ! When does the snow usually make its appearance ! What is the nature of the mountain range ! Is their declivity sloping, steep, naked, cultivated, or woody ! Do the valleys run parallel or transverse to the mountains ! Are there any roads, rivers, or torrents in the valleys ! Are the streams or torrents easily crossed, and where ! Are the mountains crested, or do they form table-lands ! if so, to what extent ! Can the roads in the mountains be rendered impracticable ! how, and where ! Are there any villages in the mountains ! and of what extent are they ! Wherever there is a village, there will be one or more footpaths ; and the torrents in the neighbourhood are generally passable by means of wooden bridges. Where do these footpaths lead to ! and can a bridge be easily thrown across for the purpose of passing artillery or stores ! Are the mountains frequented by herdsmen or smugglers ! if so, what are their usual haunts !

What is the breadth and depth of ravines in hilly countries ! Are the hills wooded, cultivated, or bare ! Are there any morasses or marshes on the hills ! if so, what is their extent ! Do the woods or brushwood offer any obstruction to the movement of the troops ! Are there any farm-houses, windmills, or streams, on the hills !

Hedges are often of use in strengthening a position, and even sometimes greatly influence the events of a whole campaign.

Few countries are so well defended by hedges as England, each field being surrounded by hedges of more or less thickness and height, and all roads being lined with them. Troops marching along the roads would have to be always on their guard against sharp-shooters ; and, in an action, the labour required to cut down the hedges and fill up the ditches, for the purpose of facilitating the movements of the cavalry and artillery, would be immense.

RESOURCES.

The reconnoissance of the resources of a country is made with respect to—1. Cantonments ; 2. Provisions and necessaries for the troops ; 3. Purposes of defence.

1. *Cantonments*.—What is the number of the houses, and of what size are they ? What massive buildings are there ? What is the facility of procuring water, and also the possibility of forming a hospital ? Can a park be formed ? and which is the best place for assembling the troops in case of alarm ?

In countries where agriculture is carried on with horses, the people build their dwellings close to each other in villages ; but where oxen are used, the slowness of these animals induces the people to live close to their own land.

In vine countries, the houses are generally small and congregated together, and are often built in places difficult of access, on slopes, &c. ; they offer few resources to troops, their roads are narrow, and seldom good.

In countries where farms are of large extent, and in the hands of a few individuals, the farm-houses are always of a good size, and well stored with forage.

Isolated inns, with large court-yards and stables, well supplied with water and other necessaries, are found in provinces where, villages or towns being at a distance from one another, and a good deal of internal traffic going on, the necessity of such buildings has been felt. Such inns are found in *Spain*, *Transylvania*, and the N. part of *Turkey*.

2. *Provisions*.—What are the products of the country around ? their exact quantity, or nearly so ? and the facility of getting them together ?

With regard to cereal crops, it should be remembered that eleva-

tion is equivalent to latitude, as far as temperature is concerned, that is to say, that richness of vegetation diminishes in proportion to the elevation of land. What animals does the country possess for draught or food? Find out the number and situation of the flour mills, the ovens, and how many rations can be cooked in them in 24 hours. During this period six distinct bakings may be made in the same oven; and, as 1000 lbs. of flour will make 1200 lbs. of bread, it can be easily calculated how long it would take to obtain bread for a given number of men.

Inquiry should be made as to the number of waggons or carts of any kind; how many men, or what amount of stores they can carry; the market days, the number and abodes of saddlers, farriers, and wheelwrights. A great deal of information relative to these points can be obtained from the local authorities; but its correctness should be well ascertained.

3. *Purposes of Defence.*—Of what nature are the buildings? Are they of brick, wood, stone, &c.? In many parts of *France* and *Germany*, houses are constructed of wood; in *Artois*, *Picardy*, *Aragon*, and *Catalonia*, they are of clay, thatched with straw; such habitations are scarcely of any use for the purposes of defence. In *French Flanders*, *Belgium*, and *England*, towns and villages are generally built of brick: the walls are easily pierced with loop-holes, and fire is not dreaded; the defenders suffer but little from splinters, and, in this respect, such houses are better than those which are built of stone.

Are the houses isolated, or together? and are they overlooked by neighbouring houses? Many small towns have remains of old walls: can these be made use of? Is there any position where a small redoubt may be constructed for the refuge of troops in event of an attack?

It seldom happens that the church and churchyard of a village do not present a favourable point for defence; for churchyards are generally walled round, and churches may be pierced, or scaffoldings erected for firing from the windows.

Is there any large country-house or farm-house where troops can be concentrated? Examine the nature of the surrounding country; the facilities it may offer to an enemy invading the cantonment; the means of resistance afforded by gardens, orchards, &c.; the best direction for hasty retreats; the best manner of communicating by signals with the neighbouring cantonments.

POSITIONS.

A position is ground of any kind occupied by an army, either to encamp, bivouac, or rest, or presenting to any number of troops the means of engaging with success even against a superior force.

Positions selected for an encampment should be on dry ground, with wood and water close at hand. The water should be of good quality, and in sufficient quantity to last as long as the troops occupy the spot, whilst provisions and forage should be easily obtained within at least a day's march.

Castrametation, or the science of tracing out an encampment, consists in determining how the several branches of the service should encamp, so as to afford each other mutual support ; this will, of course, vary according to the nature of the ground. The carrying of tents adding greatly to the baggage of an army, troops sometimes erect huts, which are formed in the same manner.

If the country is excessively dry and sheltered, and the position is to be occupied but for a short time, the troops bivouac. The arms being piled, fires are lit in the rear of them, at the rate of eight or ten men to a fire. If there is any chance of being surprised, the horses remain saddled all night, and both infantry and cavalry fall in at their posts at daylight. Napoleon, who merely looked to the rapidity of his movements, strongly encouraged the bivouac. Yet many generals prefer the inconvenience of tents and huts, to the ravages caused by the exposure to the bivouac.

The choice of positions taken up by an army previous to an engagement, varies according to the object in view, and it is very necessary not to give way to the widely-spread prejudice which causes positions of a steep and difficult access to be generally preferred ; for though such positions, when taken up for the purpose of passing through a country, crossing a river, &c., may be the best, they are not always so for an engagement. In fact, a position is not strong merely because the ground it occupies is steep, but when it is adapted to the object which is to be achieved, and when it offers the greatest possible advantage to the movements of that branch of the service which constitutes the principal force of the army.

The following maxims should be strictly observed with respect to positions :—

1. An army, occupying a position, should have easier debouches to attack the enemy, than the enemy should have to approach the position.

2. No part of the ground should be secure from the artillery fire.

3. It should possess ground advantageous for the purpose of concealing any movements which might be made from one wing to the other, so that troops could be sent to succour any point, as it might appear necessary.

4. On the other hand, the movements of the enemy should be easily discovered.

5. The rear of the position should offer an easy retreat.

6. The flanks should be well supported, so as to render an attack upon the extremities impossible, and force the enemy to attack the centre, or, at least, the front of the position.

7. In a defensive position, not only the flanks should be protected, but, if possible, the front. To effect this, the smallest natural obstacle (as a streamlet, or small space of boggy land) will suffice.

When the front or flank of a position cannot be covered by natural obstacles, or where it is required to add to their number or strength, entrenchments are formed, and recourse is had to *abattis*, inundations, &c. It should be remembered that a position ought to afford every facility to the movement of the troops ; and openings of communications should accordingly be made through the hedges, ditches, boggy ground, &c. Farms, and country seats, isolated houses, which are often found on the slopes of hills, are excellent means of defence to the approaches of a position.

Villages are excellent supports ; their winding streets, their general irregularity, their orchards, &c., render it difficult for an enemy to scan them quickly : in plains that are wanting in natural obstacles they are particularly useful.

THE END.

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